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DEVELOPMENT AND OPERATION OF TERMINAL LIVE STOCK MARKETS IN OHIO

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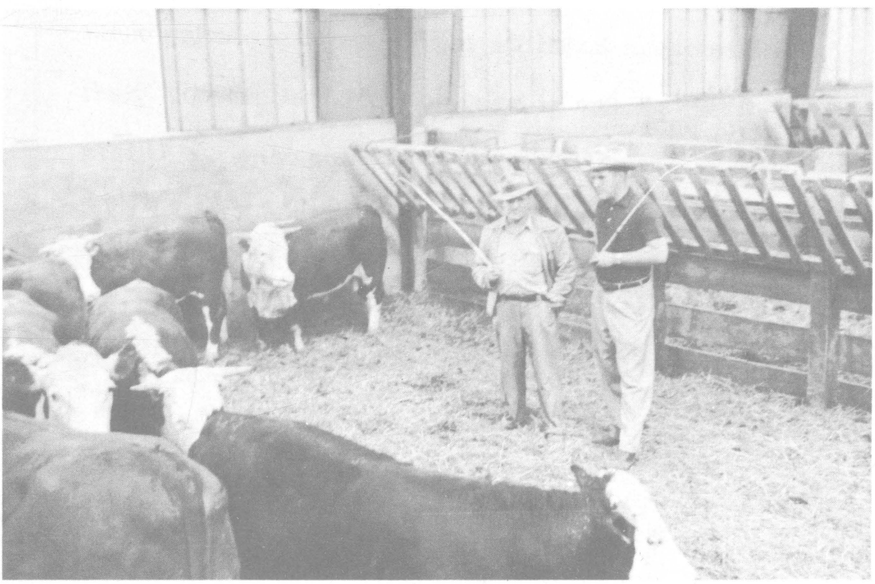

OHIO AGRICULTURAL EXPERIMENT STATION
WOOSTER, OHIO

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SECTION I

EARLY HISTORY OF LIVESTOCK MARKETING

The present system of livestock marketing in Ohio is an outgrowth of the methods that started in this country when the first cattle landed at Plymouth, Massachusetts in 1624. For 150 years livestock marketing was accomplished in a simple and direct manner. The farmer either sold livestock in the form of slaughtered meat directly to consumers or retailers, or sold the live animals to a local butcher, dealer or drover. Livestock sold to a dealer or drover usually were transported a short distance and resold to a butcher who slaughtered for local consumption. Prices paid for live animals were usually on a per head basis. Most price agreements were reached by private treaty between buyer and seller. 1/

The First Market

In the New England area, after the 1680 period, livestock markets or fairs developed. These markets at first were held on Tuesday, Thursday, and Staurday, but the farmers complained that this custom of special days caused a glut of provisions; therefore, after 1734, at Boston, the market was open every week day. 2/ There were no middlemen in this market. The farmers sold their products to buyers, slaughterers, dealers or consumers.

As the urban population developed along the Eastern seaboard and demand increased for meat, more individuals became involved in slaughtering enterprises. These slaughterers constructed small holding pens about their plants to facilitate packing operations.

The first livestock market in the United States developed from one of these holding pens at Brighton, Massachusetts. About 1756, a man by the name of Winship, established a beef packing business to supply the British Army with fresh meat. To handle

1/ Very little information has been written on livestock marketing as such. Most of the information available is concerned with the History of Livestock Raising, U. S. D. D., or the "Meat Industry" by Rudolph A. Clemen, The American Livestock and Meat Industry.

2/ See Clemen, Page 27.

his business more efficiently, he constructed some holding pens. Within a short time, other buyers and sellers of livestock began to assemble about these pens to transact their business. Soon a going market was in operation on every Thursday, come rain or shine. This market was often termed a "fair" type of market due to the many peddlers and hawkers that were present on market day.

The exact method of title transfer used in selling the livestock at the Brighton market is not stated in the available records, but probably some form of private treaty was used.

As farmers moved westward, the livestock drover became important, because it was easier and cheaper to drive the livestock on hoof than to haul the slaughtered meat in ox carts or wagons.

Early Livestock Marketing In Ohio

This was the early pattern of livestock marketing at the time of the opening of the Ohio country. During the Revolutionary War, many butchers built their own slaughtering houses rather than use the public slaughterhouses made available by cities. However, public slaughterhouses made rapid advancement and continued until recent years. In many Ohio towns, (especially the smaller ones), such public slaughterhouses continued to operate until the World War I period.

The War of Independence started an agrarian migration into the Ohio Valley. Two events 1/ stimulated the settlement of the area. First, the signing of the Treaty of Greenville, which removed the Indian menace to the early settlers, and, second, the Whiskey Rebellion in Western Pennsylvania. Farmers had been converting their corn into home stilled whiskey, which was transported to the eastern coast at greater profits than were possible by feeding it through livestock. However, with the establishment of an excise tax on whiskey by the national government, farmers turned to feeding corn to livestock, which had to be marketed.

During this period, Ohio farmers marketed their cattle and hogs by shipping them down the Ohio and Mississippi Rivers, and selling them at New Orleans, a small Spanish town at that time.

1/ Thompson, James W., History of Livestock Raising in the United States, P.92.

This trip required a long time, but it was a cheap method and stock sold for as much as twelve dollars per hundredweight. 1/ However, at times, the price was so low the revenue was less than the cost of transportation.

The low prices of livestock at New Orleans forced experiments in driving cattle, and to some extent, hogs from the production centers in Ohio and Kentucky to the consumption centers in the East. Cattle droves soon became the important method of moving Ohio cattle to the East. This method lasted until the development of the railroads after 1850. Hog droving never became as extensive as cattle droving due to the nature of the animals.

The first cattle droving started, according to Clemen, 2/ in 1805 when George Renick drove cattle from the Scioto Valley in Ohio to Baltimore, Maryland. Renick made a profit of slightly over thirty-one dollars per head.

Thompson 3/ states that cattle were driven from Ohio and Kentucky to Philadelphia and Baltimore as early as 1802. Three drover trails were developed: (1) Columbus via Zanesville, Ohio; Wheeling, West Virginia; Cumberland, Maryland; and finally to Baltimore, Maryland (2) North Central Ohio to the Ohio River where the livestock were ferried at Wellsville, Ohio, to Pittsburgh and then on the Philadelphia and (3) Northern Ohio to Erie, Pennsylvania; to Dunkirk, New York; and then to New York City. The Baltimore and Ohio, Pennsylvania and New York Central railroads follow essentially the same routes, respectively, today.

Plumb 4/ reports that in 1827 the keeper of a turnpike gate near the Cumberland River certified that 105,517 hogs during that year had been driven through the gate on the way to the South Atlantic States. Plumb also states that in 1810, Kilbrun, writing in the Ohio Gazetter, estimated that about 40,000 hogs were driven annually from Ohio to Baltimore, Philadelphia and Eastern Markets.

Many of the slaughterers constructed yards adjacent to their plants to accommodate the drovers until they disposed of their livestock. This was the beginning of years to accommodate and handle livestock on its way to the packer.

1/ Clemen, Page 43.
2/ Clemen, Page 73.
3/ Thompson, Page 95.
4/ Plumb, Charles S., "Marketing Farm Animals," Pages 13-14.

In 1817, the first steam boat began operating on the Ohio River, and it was capable of traveling from Cincinnati to New Orleans in less than a week. With improved transportation afforded by the steam boat and the growing volume of livestock production in Ohio, Cincinnati became the leading slaughter center in the United States. By 1850, New Orleans was classed with London and New York as one of the great commercial cities of the world.

With the expansion of livestock production in the Ohio Valley, livestock slaughtering expanded. According to Goss 1/ and Ford, 2/ a man named Richard A. Fosdick, who started operation in 1810, was the first local packer at Cincinnati. Clemen writes that "Elisha Mills was the first regular packer in 1818. Others were small, probably farmer packers." 3/

The pork packing industry in Cincinnati grew rapidly. In 1826, it had already become so extensive as to be declared larger than that of Baltimore, or perhaps than at any other point anywhere. Forty-thousand hogs were packed from November, 1826, to February, 1827. For many years the slaughter houses were chiefly in the Valley of Deer Creek (Cincinnati). Goss states that by 1832 the number of hogs packed was 85,000 head; 1833 - 123,000 head; 1845 - 275,000 head; and 1850 - 324,509 head. 4/ Meat was salted, cured and packed into barrels for shipment. It was during these periods that Cincinnati became known as "Porkopolis." 5/

In reporting on slaughtering this volume of livestock very few writers mentioned the problem of sanitation. Deer Creek water often was red from the blood dumped into it by slaughterhouses. The smell of the water from the polluted offal was often unbearable. Likewise the driving of cattle and hogs over the muddy streets, past the front doors of dwellings, did nothing to improve the district where slaughterhouses were located in Cincinnati during this early period.

Only a few markets developed like the Brighton Market in Massachusetts. The markets in most places developed around

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1/ Charles F. Goss, "Cincinnati, The Queen City," Page 334.

2/ Henry A. Ford, "History of Cincinnati," Page 328.

3/ Clemen, Page 93.

4/ Charles F. Goss, "Cincinnati, The Queen City," Page 328.

5/ Thompson relates, "It was Cincinnati which originated and perfected the system which packs 15 bushels of corn into a pig and packs that pig into a barrel and sends him over the mountains and over the ocean to feed mankind.

the slaughtering plants or packing houses. Marketing was direct with most of the livestock sold by the farmer going to the slaughterer, or to a dealer or drover who sold to the slaughterer.

Prior to 1850, transportation in Ohio was limited to water via canal, lake, river or ox carts, horseback or wagons. Railroad development was confined to the area east of the Alleghenies. By 1851, the Erie Railroad was opened from the Hudson to Lake Erie. During the fifties, the Lake Shore and New York Central Railroad connected Northern Ohio with Boston, New York and other seaboard points. After a few years, the forerunners of the Pennsylvania and Baltimore and Ohio Railroad systems developed. 1/

The Development of Terminal Markets

With the coming of the railroads, the droving of livestock to the Eastern markets soon ended. The railroads made it possible to assemble livestock at important railroad centers and slaughterhouses concentrated around these centers. With these new economic forces working terminal markets developed. 2/

The development of the different terminal markets followed a similar pattern. First, came the packing plants with holding pens. These plants were located generally at some point where there was an adequate concentration of livestock and suitable transportation usually by railroad. As the volume of livestock increased, the packer holding pens gave way to private yards operated by individuals or railroads. Private yards offered facilities for holding, feeding and watering arriving livestock, and a place where buyers and sellers could meet. Gradually, with an increased supply of livestock more private yards began operating. Soon the marketing conditions became unsatisfactory because buyers were forced to travel to each market, price variations developed between markets, and facilities generally became inadequate. To alleviate these problems, the terminal livestock market developed. The terminal markets were larger and generally had adequate facilities for the buyers and sellers. The history of the development of the Chicago Union Stock Yards illustrates this point.

1/ Clemen, Page 81.

2/ By terminal market is meant where two or more selling agencies are competing to sell livestock.

In 1848, a private market, "the Bulls Head Market", began operations in the Chicago area. It was the center of the livestock business for years, although it was not located on a railroad. During 1856, the John B. Sherman Yards were opened on the Michigan Central and Illinois Central Railroads. By 1858, the Michigan Southern Railroad Yards were becoming more important. During 1859, the Pittsburgh and Ft. Wayne (now Pennsylvania Railroad) opened the Ft. Wayne Yards. In 1862, the Cottage Grove Yards were opened, but were discontinued after several years. Then in 1864, the Chicago, Burlington and Quincy and the Chicago and Northwestern Railroad opened the Burlington Yards. 1/

Unsatisfactory market situations developed because of: (1) the increased number of yards seeking the livestock business; (2) some of the yards did not have buyers and, therefore, buyers had to go from one yard to another; (3) prices varied between yards, and (4) yard accommodations were poor. Due to these unhealthy business conditions, the railroad and market interests went before the Illinois Legislature in 1856 and secured a charter for incorporation of the Chicago Union Stockyards, with $1, 000, 000 of capital stock. The nine railroads converging into Chicago subscribed $925, 000, and the balance was taken by private subscription. With the opening of the Chicago Union Stockyards on December 25, 1865, the other earlier stockyards gradually discontinued operations. The Chicago Union Stockyards soon became the outstanding market in the country. 1/

Commission selling, one person selling the livestock of another for a sum of money (a commission), had an early start in the United States. Some evidence indicates that something similar to commission selling occurred on the early Brighton, Massachusetts Market. Farmers noticed individuals with unusual ability to judge the value of livestock and requested those individuals to sell their livestock, since at times a higher price could be obtained.

As railroads were expanded and the volume of railroad transportation increased, the distance livestock was moved from the farm to the market for sale increased, and it became more convenient to have someone near the market to handle the sale of farmers' livestock. Commission selling continued to grow and in 1857 the first full time commission firm began operation in Chicago. 2/ The commission firms were able to sell a large

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1/ For more details see Clemen, Pages 83 - 87.

2/ Clemen, Pages 87 - 88.

number of livestock in a short period of time, and guaranteed immediate payment for the livestock handled. This was a big advantage for the farmer.

There is little evidence to indicate when commission selling began on the Cincinnati, Cleveland, or other Eastern Markets. Probably it was gradually adopted over a period of time, 1870 to 1885.

The development of refrigeration, both in the slaughtering plants and in railroad cars, also favored the terminal markets. About 1870 refrigeration became commercially feasible. This enabled the packing houses to slaughter livestock throughout the entire year, and ship the slaughtered meat to markets throughout the country.

The terminal market system flourished for about seventy years, and accounted for nearly all the livestock slaughter. Terminals were constructed at strategic points located in heavy livestock production areas during this period. This marketing system became more specialized than at any other time in history.

A discussion of the early development of some of the Eastern Corn Belt Terminal Markets follows.

The Development of the Cincinnati Terminal Market

The present city of Cincinnati, Ohio, was founded on the north bank of the Ohio River in 1788, and was incorporated as a village in 1802. Early in Cincinnati's history, while some of the present-day markets were still Indian trading posts, Cincinnati was packing pork for both domestic consumption and export. 1/ By 1815, the export business reached $500,000. The first livestock market began operations about 1859 and was known as the Brighton Stockyards. 2/ (This market had no affiliations with the early Brighton Market in Massachusetts.) In 1861, the Great Western Yards were built on West Sixth Street, and were the principal stockyards in Cincinnati for approximately twelve years. In June, 1871, Brighton Stockyards and the Great Western Yards combined under the title of The United Railroads Stockyards Company of Cincinnati. In 1883 the corporate name of this company was changed to the Cincinnati Union Stockyards

1/ Clemen, Page 97.
2/ Max Mosler, Jacob Huffman, James D. Smith--Historic Brighton, Its origin, Growth and Development.

Cattle Chutes at Cincinnati Terminal Market provide for convenient unloading and traffic movement.

Cattle pens at the Cleveland Terminal Market provide adequate lighting and ventilating conditions for handling livestock.

Company and has remained the same to the present time. 1/

The first livestock exchange was organized at Cincinnati in April, 1881. 1/ According to its constitution, its functions were: (1) to regulate commission rates; (2) to reduce fraudulent practices, such as the passing of counterfeit money, and (3) to establish a clearing system for credits, whereby if all accounts were not settled by Saturday of each week, the dealer could not buy until his accounts were settled.

The Development of the Cleveland Terminal Market

In 1796, Moses Cleveland, head surveyor of the Connecticut Land Company, established a trading post in the area of what is now Cleveland, Ohio. In 1836, 14,000 barrels of pork and 600,000 pounds of lard were exported from Cleveland. However, there was no organized livestock market. The butchers brought livestock from nearby farms and drove them to the numerous small, crude slaughterhouses and pens on Scranton Avenue. By 1870, the Scranton yards had a capacity of about 40 carloads. In 1880, after a series of heavy rains, a landslide completely buried the existing stockyards. In 1881, officials of the CCC and I Railroad organized and incorporated the Cleveland Stockyards Company, and purchased land on the west side of 65th Street, south of the CCC and I tracks, the present location of the stockyards. An office building and a hotel were completed and placed in operation during the year. In 1892, the stockyards were reorganized and incorporated under the name of the Cleveland Union Stockyards. 2/

The first commission firm on the market was Bower and Bower, which began operation in 1892. The Cleveland Livestock Exchange was organized in 1904.

On March 11, 1944, a large fire destroyed over half the pen space, which was soon replaced with a concrete structure. 2/

The Development of the Dayton Terminal Market

The South Main Street stockyards were established in 1860. In 1873, the Main Street yards were replaced with a larger yards on the west side of town, known as the Mound Street stockyards.

1/ Frank W. Durham, Secretary of The Cincinnati Union Stockyards furnished this information.
2/ From the Livestock Marketeer, published by The American Stockyards Asso.

The Mound Street stockyards operated successfully until 1900, when they were reorganized and reopened on the east side of town and incorporated as the Dayton Union Stockyards. 1/

The Development of the Indianapolis Terminal Market 1/

In November, 1863, the Kinghan Packing Company moved from Cincinnati to Indianapolis, and constructed yards and a plant with a daily capacity of 3,000 hogs. Livestock was sold direct to the plant. Receipts increased and soon the facilities were inadequate.

In 1875, the Exchange Stockyards Company was formed, but little livestock was handled on a commission basis. Most was direct.

In the spring of 1904, the stockyards, with the exception of the exchange building, burned to the ground. Rebuilding took place soon after, and, except for some modifications in 1919 and again in 1927, it remains about the same today. 2/

Terminal Markets Today

The location of the 61 present terminal markets in the United States, as they existed in February, 1956, are shown in Chart A. A terminal market is defined as a livestock market in which more than one selling agency operates. These selling agencies are called commission firms, and any consignor who sells his livestock at the terminal market may choose which agent, or commission firm shall sell his livestock. If dissatisfied with one firm, the consignor is at liberty to choose another firm. Such is not the case in an auction market or local market. Here, only one agency is concerned with the sale of the livestock, and if dissatisfied, the consignor does not have the alternative of choosing another agency at the same location.

At the turn of the Twentieth century, nearly all the meat animals slaughtered in this country were sold through terminal markets. The only exception was the farm slaughtered meat and the portion killed by local butchers.

1/ From the Livestock Marketeer, published by The American Stockyards Asso.
2/ Fifty years of Continuous Service by the Belt Railroads and Stockyards Company, Indianapolis, Indiana, 1927.

Today, the picture has changed considerably. In 1956, approximately 52 percent of the cattle slaughtered in the United States were sold at a terminal market, along with 20 percent of the calves, 30 percent of the hogs, and 32 percent of the sheep. The importance of the terminal market relative to the total marketings has declined rapidly since 1920. Many factors have contributed to this down-turn. Improved road development, truck transportation, city expansion and traffic congestion, the increasing number of smaller local packers, and auction market development probably have had the greatest effect.

The remainder of this bulletin is based primarily on data and analysis of the terminal livestock markets in Ohio.

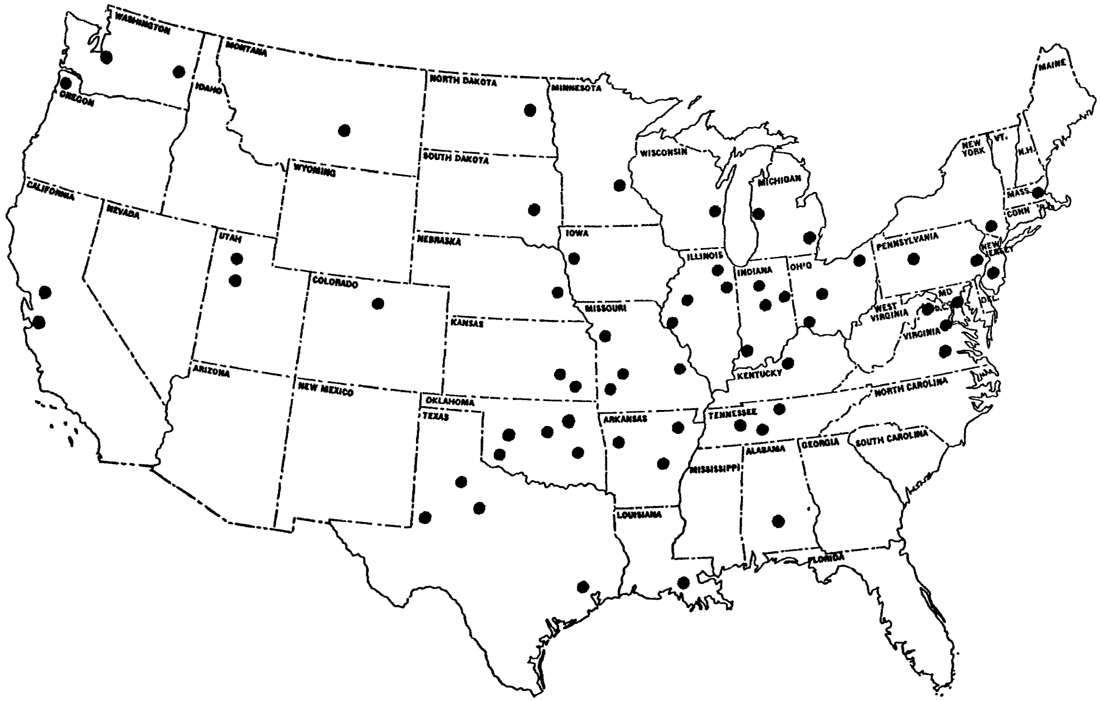


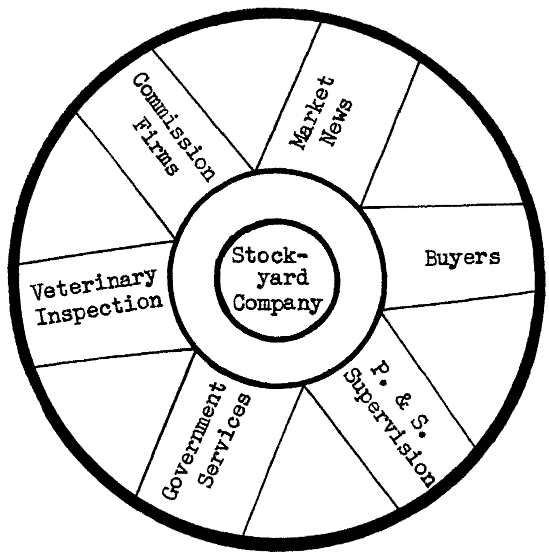
CHART A - GEOGRAPHICAL LOCATION of the 61 TERMINAL LIVESTOCK MARKETS in the UNITED STATES, FEBRUARY, 1956.
SOURCE: United States Department Agriculture, Agriculture, Packers and Stockyard Branch.

SECTION II

TERMINAL LIVESTOCK MARKET ORGANIZATION

Effective terminal livestock market organization in Ohio may be likened to a wheel with the stockyards company representing the hub and the other divisions representing spokes.

When the hub breaks down or when any spoke becomes weak or ineffective, effective operation of the entire wheel or terminal market is impaired.



The Stockyards Company

The stockyards company is the hub or the corporate body of the terminal livestock market which owns and operates the facilities necessary for operation. It is classed as a service organization, owning all the land and buildings, employing the yard personnel including weighmasters, dockmen, and yardmen, receiving and checking in all consignments of livestock, and maintaining all feed and water facilities. The stockyards company receives no financial gain from the outcome of any sale. It neither buys nor sells livestock. It often offers credit for feeder livestock purchases, and is responsible for the collection of insurance on livestock. It maintains a traffic department to settle accounts with railroads for livestock arriving for sale, in-transit or as direct receipts. It derives its income from a schedule of rates and charges for stockyard services furnished in accordance with the provisions of the Packers and Stockyards Division. 1/ Charges are assessed usually for the following: Yardage, weighing, reweighing, storage, feeding, bedding, insurance, meat board, testing, vaccination, dipping, special service, handling, and delivery of direct shipments received by truck, cleaning and disinfecting, loading, unloading-delivery, handling, storage, and delivery of rail shipments not offered for sale on the public market.

The stockyards company publishes a list of rules and regulations covering the privilege of buying, selling and trading in livestock. It also sees that the regulations stipulated by the Packers and Stockyards Act are observed throughout the market.

In addition to the above services, the stockyards company operates a public relations department. Public relations is a comparatively new step in the history of terminal markets. It was not until shortly after 1940 that the Cleveland and Cincinnati terminal markets started public relations work. The object of the work was to tell everyone about the advantages of terminal markets and to induce farmers to send more livestock to the terminal markets instead of other outlets.

Commission Firms or Selling Agencies

Commission firms operating on terminal livestock markets in Ohio are of two types: independent agencies and cooperative agencies. At the Cleveland terminal market there are five (5) commission firms operating; at Cincinnati there are nine (9) firms operating; and at Dayton there are three (3) firms operating. There is one cooperative firm (Producers) operating on each market.

These commission firms represent the farmer as his selling agent in transactions at the terminal market, using their training and experience to obtain the highest possible price for the livestock. The seller may choose any of the firms to do his selling, or if no selection is made, either the trucker or employee of the stockyards company may designate a commission firm. Many firms offer a complete list of services to their consignors or sellers including: market information, supplying feeder livestock, promotional and field work, advice on proper feeding and

1/ Terminal markets have been supervised by the Packers and Stockyards Administration, U. S. D. A., since 1921.

livestock care, and advice on the best time and desirable weights to market livestock. All commission firms are bonded for the protection of their customers in accordance with the requirements of the Packers and Stockyards Act.

Buying Interests

Terminal livestock markets are generally located in consuming centers of considerable population. This results in the presence of several major packing plants located in the general vicinity of the market. The presence of these local buyers plus outlying buyers, and distant order buying interests comprise the major part of the buying side at terminal markets. They represent a varied demand which helps maintain the competitive nature of the market. These large packers, plus farmers, dealers, and small killers make up the bulk of the buying side of the market.

Packer and Stockyard Supervision

The regulatory enforcement agency governing the operations at the terminal livestock market is provided by the United States Department of Agriculture in accordance with the Packers and Stockyards Act of 1921. The main purposes of this act are: (1) to maintain free, open and competitive markets, (2) and to prevent and correct abuses in the livestock marketing industry. The enforcement of the provisions of this Act is the responsibility of the United States Secretary of Agriculture.

Major provisions of this Act include:

1. Licensing of livestock dealers and agencies.
2. Posting yards with 20,000 square feet or more of pen space.
3. Bonding of livestock dealers and agencies.
4. Scale inspection and regulation.
5. Approval of rates and charges.
6. Control of interstate shipment of livestock.
7. Handling complaints and claims of livestock procedure.
8. Elimination of deceptive and discriminatory practices.

The terminal markets in Ohio are proud of the fact that for nearly 75 years not one customer has lost money due to dishonesty or financial inability to pay for livestock sold.

State and Federal Inspection Service

The United States Department of Agriculture with its Bureau of Animal Industry and the Ohio Department of Agriculture's Division of Animal Industry perform the necessary and important function of inspection of livestock at terminal markets.

The Federal Bureau of Animal Industry has control of animals moving interstate which are not for slaughter. They are mostly interested in the detection of diseased animals and the proper control and disposition of those animals. All animals arriving at the yards are inspected for contagious diseases and infection, and health certificates are issued for those animals going interstate.

The Ohio Division of Animal Industry is in charge of detecting contagious diseases and infection of animals on terminal markets by testing, and are responsible for issuing health certificates for animals returning to the farm for feeding, breeding or dairy purposes. This includes the supervision and immunization of swine for hog cholera returning to Ohio farms and the tuberculosis and brucellosis testing of cattle. Lambs and calves for feeding purposes must be cleared by these agencies also.

SECTION III

PATTERNS OF LIVESTOCK RECEIPTS AND SALES AT OHIO TERMINAL MARKETS

Total Livestock Receipts

Total livestock receipts at a terminal market include all of the livestock that pass through the physical facilities of the market. It consists of salable receipts, direct-to-packer receipts and transit receipts. Salable receipts are those that are actually sold on the market, by the various commission firms. Direct receipts include those animals that are purchased by the packers at various country points and shipped to the market for slaughter. Those "direct" animals are owned by the packers and are not sold at the market, but use is made of unloading and holding pens of the market before slaughter. Yardage charges are paid to the stockyards company for the use of these facilities by the packers. Transit receipts for the most part are the rail transported livestock that stop at the market for feed, rest and water while enroute to some more distant market. Transit receipts as well as the direct receipts provide a small source of revenue for the stockyards company, but they do not affect the revenue of the commission firms.

Salable Livestock Receipts

Salable receipts are the life line of a terminal market. They are the largest source of revenue for both the stockyard company and the commission firms. A loss in the volume of salable receipts on the terminal market has a direct effect upon its existence. Thus, it should be the goal of all commission firms operating on the market, along with the stockyard company, to maintain a supply of livestock in the volume and type demanded by the buying interests of the market. Also, it is to the advantage of the packer to have the volume and type of receipts required by his meat trade available at a terminal. He can purchase all of his livestock at the terminal market and thereby avoid added expense and trouble of procuring livestock from distant areas.

The commission companies receive a "commission" for their services in caring for, selling, and insuring payment in the sale of the consignor's livestock. The commission charges vary by specie and the number of head sold in each consignment. For example, at Cincinnati the current (November, 1956) commission charge for selling one steer is $1.35, for a lot of 10 steers the charge is $1.10 per head, and for 20 steers the charge is $1.05 per head. Hence, the larger the consignment, the lower the cost per head. The charge for selling hogs individually is $.60; for a lot of 10 hogs, $.43 per head; and for 20 hogs, $.375 per head. These charges are established by agreement of all the commission firms and approved by the Packer and Stockyard Act Supervisor. All commission firms must charge the same commission for selling the same number of livestock of the same class.

In addition to the commission charges there is a yardage charge (May 10, 1957) at Cincinnati is $.92 per head of cattle and $.30 per head for hogs. This charge does not vary with the number of head in consignment, but is a flat rate per head collected by the commission firms and paid to the stockyard company. Also, a set charge by specie is paid by the consignor for the operation of the National Livestock and Meat Board. (The charge for cattle is 2¢ per head, for hogs 2/3¢ per head, for calves 2/3¢ per head, and for lambs 2/5¢ per head. Some meat packers match the funds contributed by farmers. Only 35 states have markets that are collecting for the National Livestock and Meat Board.)

Additional charges that a consignor might pay are a feed charge, if the livestock is held over night, vaccination charge, and a bangs or T.B. test charge. These costs vary with each market. These charges are not rigid, but change from time to time as general economic conditions change.

Salable Livestock Receipts Expressed as a Part of Total Livestock Receipts.

Salable receipts are of primary importance to the terminal market system, therefore, their proportion of total receipts is very important. In the last few years cattle salable receipts at Cincinnati and Cleveland have been increasing (Table 1). In 1955, salable receipts were about 230,000 at Cincinnati, 130,000 at Cleveland, and 18,000 at Dayton.

The greatest change in the past few years was the decrease in hog receipts at Cleveland from 235,000 in 1950 to 174,000 in 1955. The volume of hog receipts at Cincinnati has fluctuated considerably since 1950. The calf receipts at all three markets has been quite steady during the last five years. Cleveland is the largest sheep and lamb market of the three markets with about 115,000 head. Cincinnati's sheep and lamb receipts are about one half as large as receipts at Cleveland.

In 1955, over 80 percent of all species of livestock sold at Cincinnati and Dayton were salable but at Cleveland slightly less than 50 percent of the cattle and hogs were salable, and about 75 percent of the total receipts of calves and sheep and lambs were salable (Table 2). There were significantly less salable receipts at Cleveland than at Dayton and Cincinnati.

TABLE 1

Salable Receipts at the Three Terminal Markets in Ohio

Year	Cattle			Calves			Hogs			Sheep and Lambs		
	Cinn.	Cleve.	Dayton	Cinn.	Cleve.	Dayton	Cinn.	Cleve.	Dayton	Cinn.	Cleve.	Dayton
1920-30	188,644	117,249	---	88,831	142,043	---	751,543	722,440	---	104,613	375,746	---
1940	152,741	105,227	---	84,505	102,500	---	840,998	329,964	---	182,092	257,373	---
1945	162,406	79,598	---	83,137	61,655	---	542,783	147,528	---	124,104	143,446	---
1946	139,146	54,665	22,297	73,883	50,965	13,740	555,692	130,220	81,742	111,322	122,416	29,864
1947	193,587	83,993	26,066	82,087	72,168	12,410	615,756	190,641	98,890	95,780	123,205	26,296
1948	180,004	84,435	23,992	74,391	59,152	10,124	691,329	186,573	98,207	92,746	99,786	25,957
1949	164,457	78,327	22,514	67,140	56,286	7,638	782,191	217,781	114,390	79,597	87,188	23,442
1950	162,044	89,179	19,172	61,433	53,187	6,653	855,715	237,361	114,620	68,371	82,521	20,983
1951	147,560	80,831	17,300	51,364	45,129	5,083	846,756	238,219	114,320	55,407	75,661	16,184
1952	152,733	77,408	16,412	47,897	47,897	4,473	817,142	224,720	97,984	71,083	99,776	18,910
1953	206,853	114,635	17,956	60,640	50,834	5,322	666,686	189,833	74,868	77,256	113,171	19,799
1954	232,516	139,136	19,696	62,750	52,978	4,922	696,862	161,364	68,531	72,005	114,724	17,937
1955	229,516	131,139	17,630	60,009	47,102	4,267	789,152	174,397	84,252	67,932	115,682	18,629
1956	240,382	152,296	17,090	57,900	42,425	3,279	811,716	200,613	83,609	71,367	115,886	14,177

Source: Original Data

TABLE 2

Salable Receipts Expressed as a Percentage of Total Receipts
for Three Terminal Livestock Markets in Ohio

Year	Cattle			Calves			Hogs			Sheep and Lambs		
	Cinn.	Cleve.	Dayton	Cinn.	Cleve.	Dayton	Cinn.	Cleve.	Dayton	Cinn.	Cleve.	Dayton
1920-30	71.5%	95.5%	---%	76.8%	94.6%	---%	57.5%	92.3%	---%	49.6%	82.0%	---%
1940	68.8	98.1	---	88.4	98.4	---	73.8	98.7	---	62.2	95.6	---
1945	46.0	74.4	---	69.0	83.9	---	72.3	84.5	---	67.7	61.2	---
1946	33.3	56.2	94.2	52.9	77.3	93.7	64.2	82.8	100.0	49.8	54.4	96.5
1947	47.5	35.0	99.5	55.1	73.8	99.6	68.3	58.6	97.9	63.3	52.5	96.9
1948	54.9	39.9	99.7	50.9	67.4	100.0	80.7	48.0	100.0	60.1	44.3	99.9
1949	59.1	40.0	96.7	57.7	79.1	100.0	93.1	57.0	100.0	65.6	63.0	100.0
1950	67.2	43.6	97.9	65.3	79.8	100.0	91.7	63.2	98.7	53.3	62.5	98.8
1951	66.6	43.8	98.0	77.1	84.1	100.0	88.3	66.4	100.0	63.7	70.4	99.2
1952	66.9	43.0	97.0	95.2	84.5	100.0	87.7	56.1	99.9	64.8	65.2	92.7
1953	72.0	48.7	88.2	85.7	83.1	98.6	91.9	58.0	99.7	76.1	66.2	74.9
1954	80.2	54.0	89.2	87.3	75.5	94.9	94.7	48.8	99.6	83.1	63.2	90.5
1955	80.4	49.4	96.9	91.7	74.8	92.3	93.8	47.6	100.0	80.6	76.2	98.8
1956	79.6	51.6	95.2	94.4	75.9	100.0	94.3	47.7	100.0	73.5	62.5	94.4

Source: Original Data

Daily Salable Livestock Receipts at Cleveland and Cincinnati

From the daily salable receipt records at Cleveland and Cincinnati, the weekly total receipts and the average percentage each day made of the week's total receipts were computed. Weekly periods with holidays were omitted for the analysis.

Cattle receipts fall off rapidly at Cleveland during the latter part of the week (Table 3). More than 75 percent of the cattle at Cleveland came on Monday and Tuesday with the remainder divided among the other three days of the week. Thursday and Friday were especially light days, in which the salable receipts averaged less than 100 head.

TABLE 3

Weekly Distribution of Salable Cattle Receipts
at Cleveland and Cincinnati, 1955

(Yearly mean)

Market	Monday	Tuesday	Wednesday	Thursday	Friday
Cleveland	59.9%	19.0%	12.3%	6.2%	2.6%
Cincinnati	42.6	17.6	16.1	12.9	10.8

Source: Original Data

The distribution of weekly salable receipts at Cincinnati followed a more even pattern than at Cleveland. At Cincinnati, Monday accounted for 42.6 percent of the weekly salable cattle receipts. There was a marked difference between the two markets in the distribution of receipts over the week in that after Wednesday the cattle market at Cleveland virtually ceased to exist, whereas at Cincinnati about 24 percent of the cattle were marketed after Wednesday. Generally, the weekly cattle receipts at Cincinnati were almost twice as great as they were at Cleveland.

The weekly pattern of calf receipts differed significantly from the pattern of cattle receipts at both Cleveland and Cincinnati (Table 4). On Tuesday, calf receipts at Cincinnati averaged larger than Monday's receipts. One reason for this situation may be attributed to convenience in transportation. On Monday most truckers had a single consignment of cattle or hogs and were not able to haul small, multiple consignments of calves.

Cattle unloading docks at the Cincinnati Terminal Market are at two different levels which enables the market to accommodate all sizes and types of trucks.

Double deck hog pens at the Cincinnati Terminal Market provides convenient facilities for unloading and handling the hogs brought to market.

Tuesday was often termed "pick-up" day which tended to increase the volume of calves marketed on Tuesday over the other days of the week.

TABLE 4

Weekly Distribution of Salable Calf Receipts

at Cleveland and Cincinnati, 1955

(Yearly mean)

Market	Monday	Tuesday	Wednesday	Thursday	Friday
Cleveland	42.5%	29.4%	18.0%	10.0%	0.1%
Cincinnati	24.8	33.1	18.4	13.2	10.5

Source: Original Data

At Cleveland, Monday was the heaviest day with volume decreasing each succeeding day of the week. On Friday, practically no calves were sold on the Cleveland market.

The salable receipts of hogs at Cleveland did not follow an even distribution through the week (Table 5). Monday was the heaviest day followed next by Tuesday. Wednesday averages for the year were somewhat more than Thursday. However, it should be noted that there was considerable variation from these averages in the different weeks.

TABLE 5

Weekly Distribution of Salable Hog Receipts
at Cleveland and Cincinnati, 1955

(Yearly mean)

Market	Monday	Tuesday	Wednesday	Thursday	Friday
Cleveland	36.2%	27.7%	17.5%	15.3%	3.3%
Cincinnati	25.5	19.0	16.9	17.3	21.3

Source: Original Data

The weekly salable hog receipts followed a more even pattern at Cincinnati. It is noteworthy that Friday's receipts averaged the second highest, surpassed only by Monday's receipts. Also, it was noted from the original data that the pattern of daily salable receipts was not related directly to the volume of total weekly receipts. The distribution of daily salable receipts remained about the same regardless of whether total receipts amounted to 11, 000 head or 20, 000 head.

It was the opinion of many of the market personnel that "prices the previous day" had a large effect on the volume received at the market. When the price was high the previous day, farmers tended to hold off marketing, anticipating still higher prices. However, at times, the prices dropped in response to the large number of receipts coming on the market a day or two after a price rise. The effect on this market perhaps was watched closely by farmers on a day to day basis, since the supply areas were close to the market and livestock could be transported to the market in short periods of time in response to the daily price of hogs.

The weekly distribution of salable receipts for sheep and lambs showed a pattern of orderly decline in volume of receipts from Monday through Friday at both the Cleveland and Cincinnati markets (Table 6). However, the original data showed that there was a large variation in the total weekly receipts as well as variation among the days of the same week. For example, receipts of sheep and lambs on Monday varied from 9.8 percent to 65.1 percent of the total week's receipts at Cleveland and for Friday the range was from 10 percent to 17.5 percent. Similar variation in daily salable receipts also occurred at Cincinnati. Sheep and lamb numbers in Ohio have decreased considerably in recent years, thereby reducing the supply available for market.

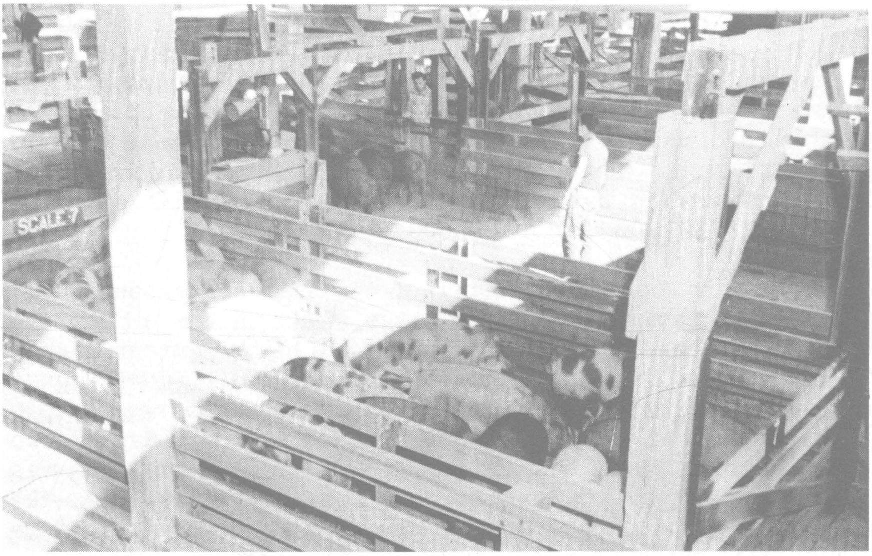
TABLE 6

Weekly Distribution of Salable Sheep and Lamb Receipts at Cleveland and Cincinnati, 1955

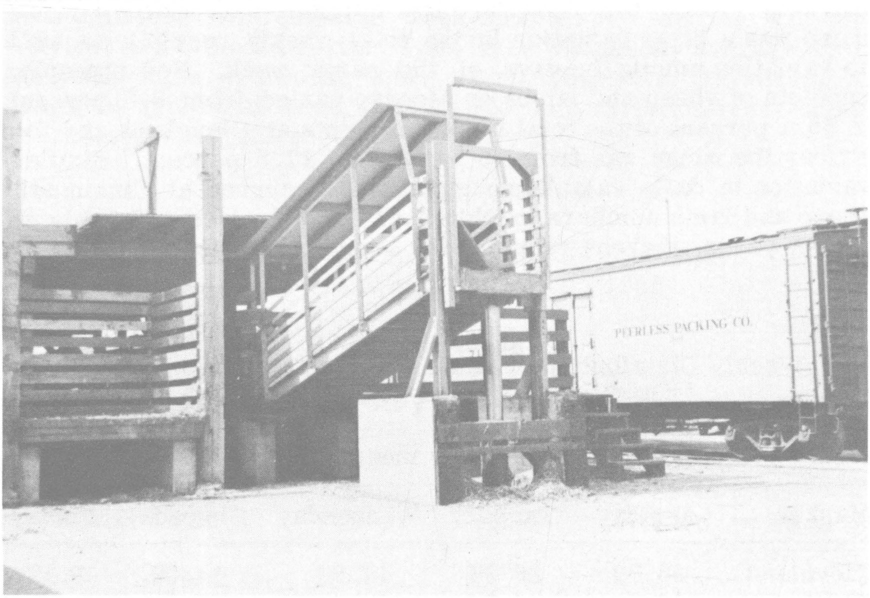
(Yearly mean)

Market	Monday	Tuesday	Wednesday	Thursday	Friday
Cleveland	36.8%	26.2%	17.9%	14.0%	5.1%
Cincinnati	29.2	26.3	24.7	12.5	7.3

Source: Original Data



Triple scale weighing station at the Cincinnati Terminal Market provides excellent facilities for weighing hogs. This type of scale greatly reduces the time involved in the weighing operation.



The Cleveland Terminal Market provides an unloading chute with a hydraulic lift to accommodate triple deck hog and sheep trucks.

The packer, the commission company and the stockyard company all have an interest in reducing the variation in the daily salable receipts since this variation tends to complicate their labor-management problem. The heavy Monday receipts tend to overtax the physical facilities in the stockyards and tend to force the packer to buy on Monday and hold the livestock over one or more days before slaughter. Many packing plants guarantee a certain number of hours of work each week for each man. Thus, the packer must kill a required number of livestock each day to minimize his labor cost by keeping labor fully employed. The packers can vary their killing schedule considerable to adjust to the volume of livestock available for slaughter on different days of the week, but they are not able to slaughter on Monday and Tuesday the heavy receipts that enter some terminal markets the first of the week. Therefore, the cost of housing, feeding, and watering the livestock prior to slaughter becomes an important cost for some of the larger packers. From the standpoint of efficient marketing, it would be desirable for the farmers and the marketing agencies to supply the desired quantity and quality of livestock for slaughter in a manner that more nearly meets the requirements of the slaughtering industry.

SECTION IV

ATTITUDES AND OPINIONS OF TRUCKERS AND COMMISSION FIRMS CONCERNING RECEIPT PATTERNS ON THE CLEVELAND AND CINCINNATI TERMINAL MARKETS

Summary of Trucker and Commission Firm Schedules at Cleveland and Cincinnati Terminal Markets

The truckers and Commission firms at Cleveland were interviewed during May 20 to May 25, 1956. The same schedule was used at Cincinnati during June 3 to June 8, 1956. The main objective of this study was to determine what factors and influences caused the receipts at terminal markets to be so heavily concentrated in the first part of the week. The schedules sought information that would help explain the receipt patterns at the terminal market, and possibly be of value in helping the industry to achieve a more even distribution of salable receipts through the week.

Forty-two truckers were interviewed at Cleveland and seventy truckers at Cincinnati. The results of the study are summarized as follows:

1. At both markets over 40 percent of the cattle were shipped in consignments of one - three head. Over 70 percent of the calves were shipped in consignments of one - three head. Over 70 percent of the calves were shipped in consignments of six head or less. The number of head of hogs per consignment was assembled in a frequency table with a class interval of five from one to fifty head. There was a rather even pattern in number of hogs received in each size consignment up to forty head. A very similar pattern of number of head per consignment exists for sheep.

2. At both markets, on Sunday, most of the truckers interviewed had only one or two consignors shipping livestock. Later during the week the number of consignors per load increased to four or more.

3. Seventy-six percent of the truckers at Cleveland said they would like to see the receipts spread out more evenly over the week. Forty-two percent of the truckers who wanted the receipts spread more evenly over the week said it would be more convenient for their business, and 16 percent said, "It would make a better market."

   At Cincinnati 63 percent of the truckers said they would like to see the receipts spread more evenly over the week. About one-third of these truckers wanted the receipts to be spread more evenly over the week because it would be more convenient for their operation, and 14 percent said they would have a haul every day if the receipts were distributed more evenly over the week. Some of the other frequent answers were "it would even out market prices," "prices would be higher," and "easier to unload."

4. Sixty-two percent of the truckers at Cleveland said there was one day of the week that was better than the other for marketing livestock. Over 80 percent of the commission firms and the truckers agreed that Monday was the best day to market cattle. Fifty percent of the truckers, and 45 percent of the commission firms at Cleveland, said Monday was the best day for hogs, and Tuesday was the second best day.

   At Cincinnati, 44 percent of the truckers said there was one day that was better than other days for marketing cattle. These truckers said Monday was the best day to sell cattle. Several of the commission firms at this market encouraged their consignors to sell cattle later in the week to avoid some of the rush and confusion of Monday. Nearly all of the truckers (90 percent) with a preference for one day of the week considered Monday as the best day to market hogs at this market, but the commission firms felt that Monday was only slightly better than the other days of the week.

5. At Cincinnati 60 percent of the truckers reported a transit time of two hours or less, and over 29 percent of the truckers reported a transit time of three hours or less to the market. At Cleveland nearly 60 percent reported a transit time of three hours or less. The remaining 40 percent of the truckers reported longer hauls.

6. Hauling fertilizer was reported more often than any other type of business operated in conjunction with livestock hauling at both markets.

7. Nearly 60 percent of the truckers said they made 60 percent or more of their income transporting livestock to the terminal markets.

8. At both the Cincinnati and Cleveland markets, 30 percent of the truckers had weekly scheduled trips, while 70 percent stated they had no weekly scheduled trips of any nature.

9. At Cleveland 60 percent and at Cincinnati 69 percent of the truckers stated they made more than one trip to the market within the same day. Of the truckers that made more than one trip to the terminal per day, four-fifths reported that it was done only on rare occasions.

10. At Cleveland 25 out of the 42 truckers stated that they had a preferred day to market cattle. Twenty-one of these 25 truckers preferred to market their cattle on Monday. Of these, 38 percent gave the reasons as "more buyers," 24 percent "market price is better," and 14 percent said "packers buy first of the week." When the same question was asked the five commission firms, they all preferred Monday, with three (3) firms preferring Monday" due to more buyers" and two (2) because "packers must have kill ready to go on Tuesday."

    Twenty-one out of the 42 truckers interviewed at Cleveland stated they had a preferred day for marketing hogs. About half of these truckers preferred Monday and the rest preferred Tuesday, Wednesday, or Thursday. "More buyers" (40 percent) was mentioned most on Monday, and "better price" was the most important reason. "Not as many on market" was the reason why the truckers picked the other days of the week. Most of the commission firms who preferred Monday as the best day to market hogs gave the reason as "more buyers" and "packers want to get kill lined up early in the week" as the reasons.

At Cincinnati 30 truckers out of 70 preferred one day over the others to market cattle. Twenty-nine out of 30 of these truckers preferred Monday to market cattle. The reason given for Monday was "more buyers" (80 percent), and "packers buy first of week" (7 percent). The commission firms said that Monday was the best day to market cattle (60 percent of the firms), but 13 percent said Wednesday was the best, one firm said Thursday was best, and one firm said Friday was best. Nine out of the 15 firms indicated Monday was the best day to market cattle. Six of these firms gave the reasons "more buyers" and two gave the reasons as "packers must have kill ready to go for Tuesday." The remaining firms felt the other days were best because lighter marketings encouraged better prices.

Twenty out of the 70 truckers on the Cincinnati market preferred a certain day to market hogs. The most popular day was Monday because of "more buyers" (67 percent) and "better price" (17 percent). Most of the commission men felt that there was no difference in the days of the week for marketing hogs, and that all the days were nearly the same.

11. The reasons given by the Cleveland truckers to the question, "Why do you think the majority of livestock sold at primary public markets are marketed in the early part of the week?" were as follows: "habit of producers" (30 percent), "producers think that the market is better at the first of the week" (18 percent), "packers buy more at first of week" (9 percent), and "more buyers first of the week" (9 percent). At Cincinnati the reasons given to the same question were "more buyers first of week" (27 percent), "producers think market is better first of week" (13 percent, "producers have time on Sunday to get livestock ready for market" (13 percent), and "habit of producer" (10 percent).

12. About 70 percent of the commission firms at both markets said that solicitation was very important in maintaining their volume due largely to the competition from other firms and other markets.

13. At Cleveland three of the commission firms said they received from 1 to 20 percent of their receipts from country dealers, and three out of five firms received over 80 percent of their receipts from farmers. At Cincinnati five out of ten commission firms said they received from 0 to 19 percent of their receipts from country dealers and seven out of ten of these same firms stated they received 80 percent to 100 percent of their receipts from farmers.

14. At each market when they were asked the question "What is the cause of the daily receipt pattern for cattle at this market?", no one statement was made more than two or three times. There was no uniform reason in the minds of the commission men to explain the cattle patterns at their markets. At Cincinnati three commission firms said, "packers buy at the first of the week," and two out of ten firms said, "packers like to get their requirements for certain kinds of cattle bought as soon as possible." At Cleveland two out of five firms said the cattle pattern was "caused by action of commission men, packers and buyers." At Cincinnati, four out of ten firms stated they had "no opinion" as to the cause of the daily receipt pattern for hogs at the market. At Cleveland, two out of five commission firms stated the cause of the daily hog receipt pattern at their market was action of commission men, packers and order buyers.

SECTION V

DISTANCE OF THE ORIGIN OF SALABLE RECEIPTS AT THE CLEVELAND & CINCINNATI TERMINAL MARKETS

The origin of salable receipts is very important to all terminal markets. Data on the origin of salable receipts sold at the Cleveland and Cincinnati markets was obtained from a sample that consisted of the receipts handled by two commission firms at each market for a ten day period in April and October (Table 7).

By looking at a map of the area about the Cleveland and Cincinnati markets, it can be seen that Lake Erie seriously reduces the supply of livestock close to the Cleveland market compared to Cincinnati. Secondly, the urban growth along Lake Erie and the surrounding area has tended to reduce the livestock supply close to the Cleveland market. Therefore, livestock sold at Cleveland generally is transported greater distances than at Cincinnati. At these greater shipping distances, there is a larger number of alternative markets where a farmer may choose to sell his livestock, if he is not completely satisfied at Cleveland. However, the packers at Cleveland have developed a good beef market along the eastern seaboard with many railroad cars of carcass beef shipped each week to the east, which tends to strengthen cattle prices at the market.

It was not surprising to learn that at Cleveland nearly 45 percent of the cattle originated from distances of over 100 miles, while at Cincinnati very few cattle (2. 5 percent) originated from distances beyond 100 miles. (Table 7 and Chart B.) Cleveland has a strong cattle market and the market has been increasing during the last few years. Over 70 percent of calves sold at Cincinnati traveled distances less than 50 miles, but at Cleveland most of the calves traveled distances of 51 - 100 miles. Very few calves traveled distances of over 100 miles to either the Cleveland or Cincinnati markets.

The majority of the hogs that move into the Cleveland market traveled greater distances than hogs that moved to the Cincinnati market (Chart C). Nearly 75 percent of the hogs that were sold on the Cleveland market traveled distances of more than 50 miles.

TABLE 7

Number of Head and Percent of Salable Livestock Received From Various Distances by Class of Livestock, Cleveland and Cincinnati, April and October, 1953 a/

	Under 25 miles				26 - 50 miles				51 - 100 miles			
	Cleve.		Cinn.		Cleve.		Cinn.		Cleve.		Cinn.	
	No. Head	%	No. Head	%	No. Head	%	No. Head	%	No. Head	%	No. Head	%
Cattle	117	3.0	957	25.8	633	16.0	2072	28.9	1439	36.3	1585	42.8
Calves	132	7.7	591	35.2	435	25.2	611	36.4	1041	60.4	475	28.3
Hogs	192	2.9	4006	18.9	1012	15.5	9179	43.4	4737	72.6	7925	37.5
Sheep & Lambs	125	2.8	744	35.2	197	4.5	465	22.1	3266	74.4	901	42.6

	Over 100 miles				Total			
	No. Head	%	No. Head	%	No. Head	%	No. Head	%
Cattle	1771	44.7	94	2.5	3960	100.0	3708	100.0
Calves	116	6.7	1	0.1	1724	100.0	1678	100.0
Hogs	588	9.0	45	0.2	6529	100.0	21155	100.0
Sheep & Lambs	805	18.3	0	0.1	4393	100.0	2110	100.0

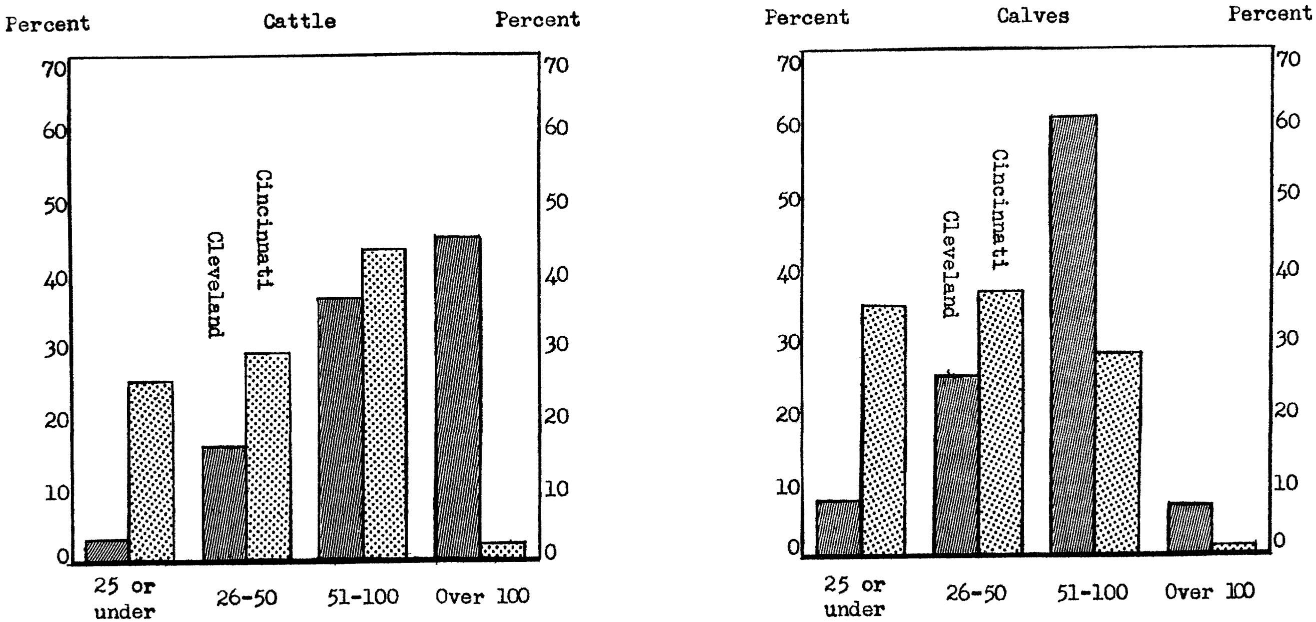
a/ Commission firms sampled were Producers and Consolidated at Cleveland, and Producers and Brock at Cincinnati.

Source: Ten day sample of receipts for April and October, 1953.

CHART B

Distance of Consignors Consigning Cattle and Calves to the Cleveland

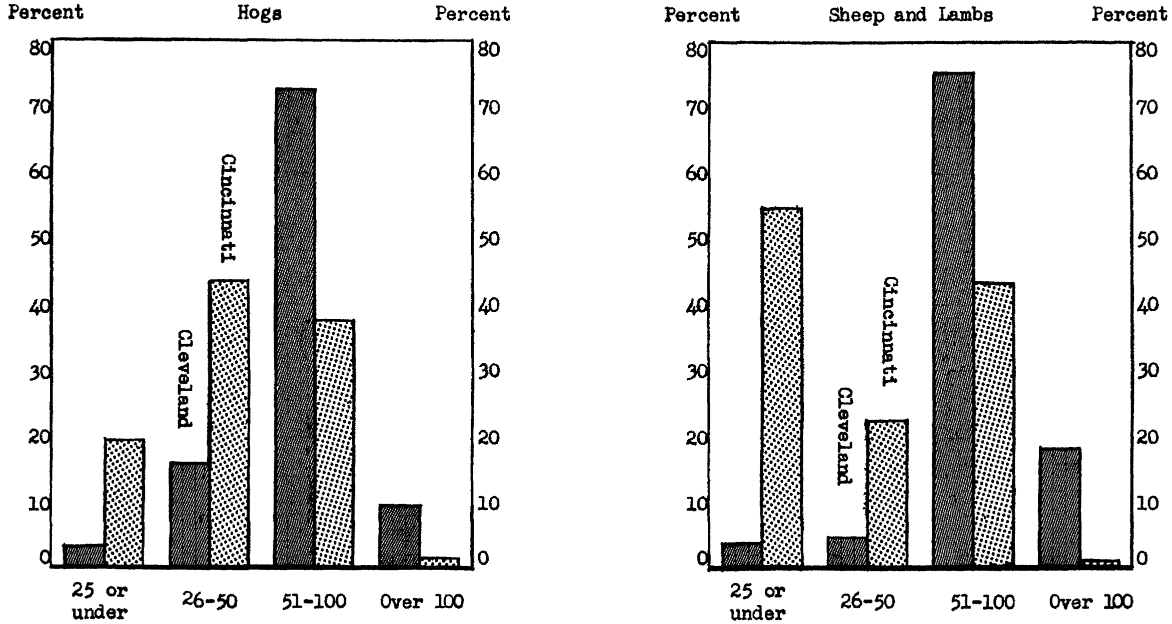
and Cincinnati Terminal Markets, 1953



Source: Table 8

CHART C

Distance of Consignors Consigning Hogs and Sheep and Lambs to the Cleveland and Cincinnati Terminal Markets, 1953



Source: Table 8

Sheep and lambs going to the Cleveland market followed a pattern very similar to the hogs receipts with nearly 75 percent of the receipts coming from distances between 51 - 100 miles to the market (Chart C). The sheep and lamb movement to Cincinnati followed a pattern in which there were two peaks, under 25 miles and 51 - 100 miles, with the volume of receipts between 26 - 50 miles less than for the distance intervals on either side.

Trends in Source of Livestock Shipped

Charts D, E, F, and G show by specie and county, the distances from which the Cincinnati terminal's salable receipts originated for 1953. Similar information is shown for 1940 (Table 10, Appendix) in order that a comparison can be made over the thirteen year period. However, due to Cleveland's method of bookkeeping, such information was not readily available by counties. The time and expense necessary to obtain such information could not be justified within the limits of this study.

In 1953, cattle receipts concentrated within 50 miles from the market as shown in Chart D. The picture was very similar in 1940 with the only difference being a slight reduction in cattle numbers originating beyond the 50 mile circle.

There was very little change in the pattern for calves between 1940 and 1953. Receipts were down slightly in 1953. The 50 mile circle seemed to be the dividing line in shipping the calves to market. Farmers more than 50 miles from Cincinnati could choose alternative markets closer to their farm to sell calves.

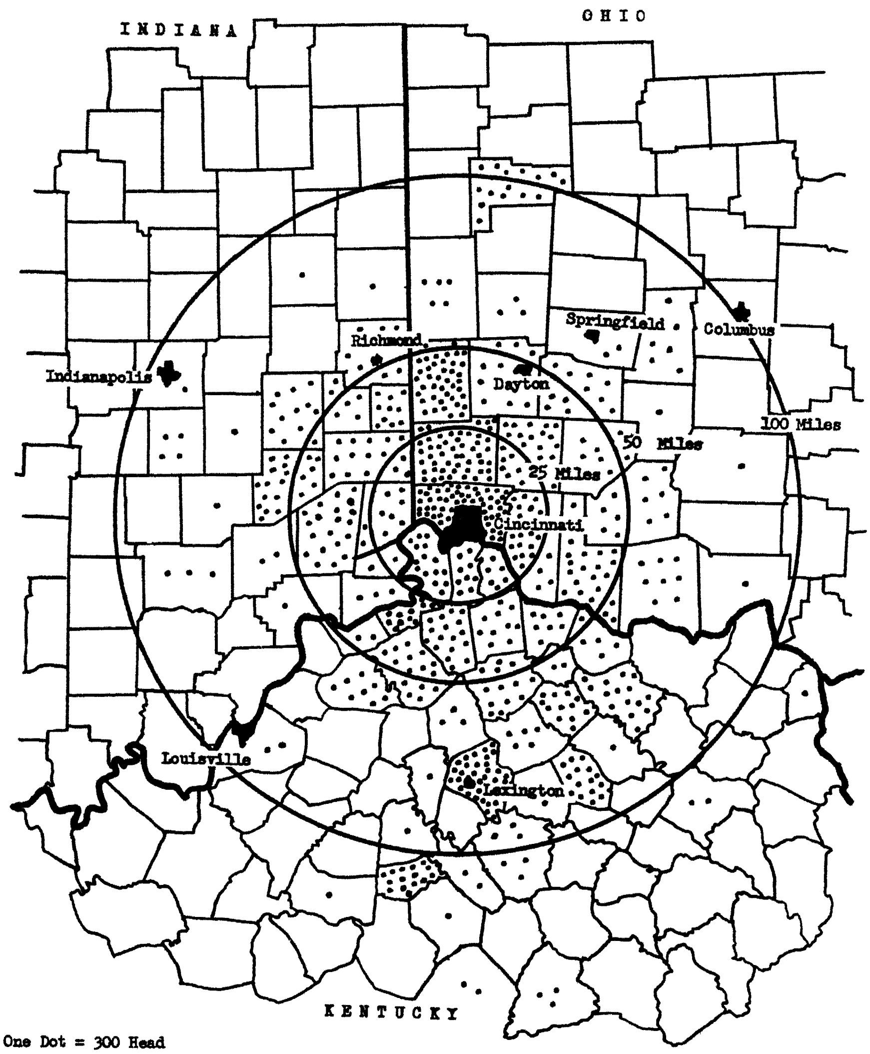
Hogs sold at Cincinnati practically all came from the Ohio and Indiana counties surrounding Cincinnati, and by far the largest portion of these hogs came from a distance of less than 50 miles. There was a rather sharp dividing line northwest of Cincinnati slightly beyond the 50 mile circle. Beyond this line hogs seemed to move to other markets instead of Cincinnati.

Two important items should be noted concerning sheep and lambs. First, the volume of receipts declined by more than one half from 1940 to 1953, and second, very few sheep moved to Cincinnati from a distance of greater than 50 miles.

In general, it can be stated that the same counties which were heavy shippers of livestock to Cincinnati in 1940 also shipped large volumes in 1953. A slight decrease between 1940 and

CHART D

Origin of Cattle Receipts by Mileage Zones at Cincinnati, Ohio
1953

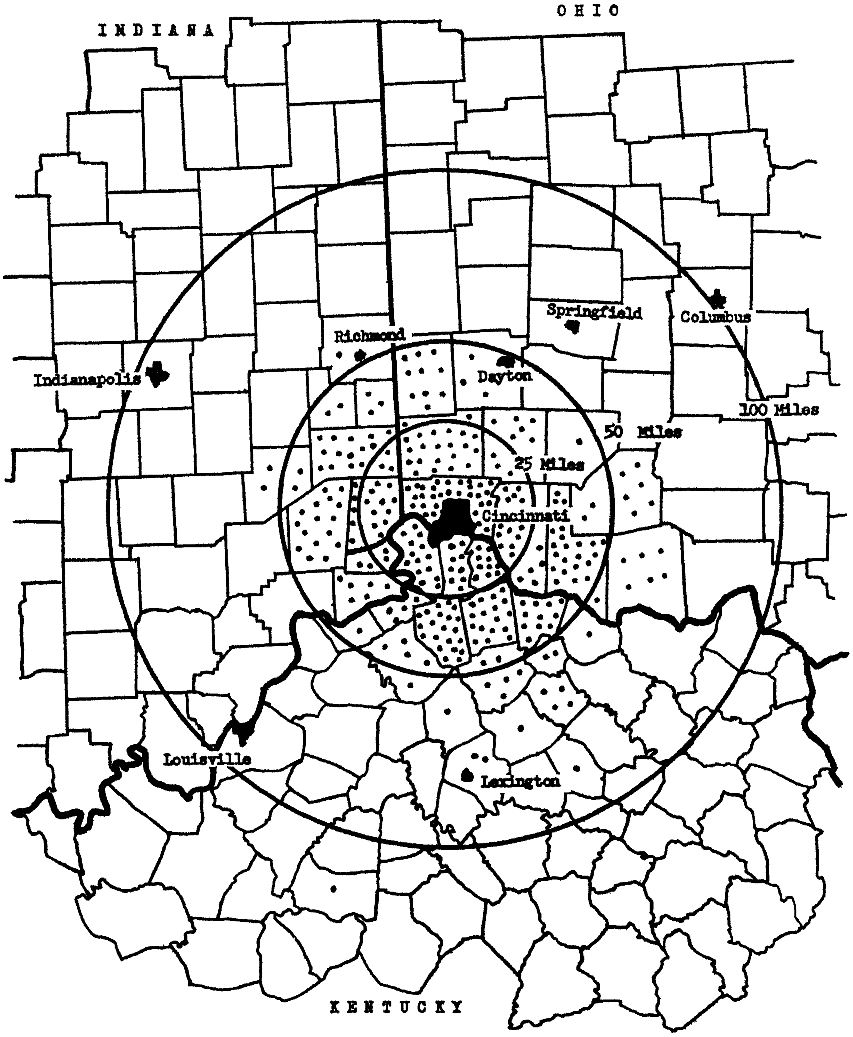


One Dot = 300 Head

Source: Original Data

CHART E

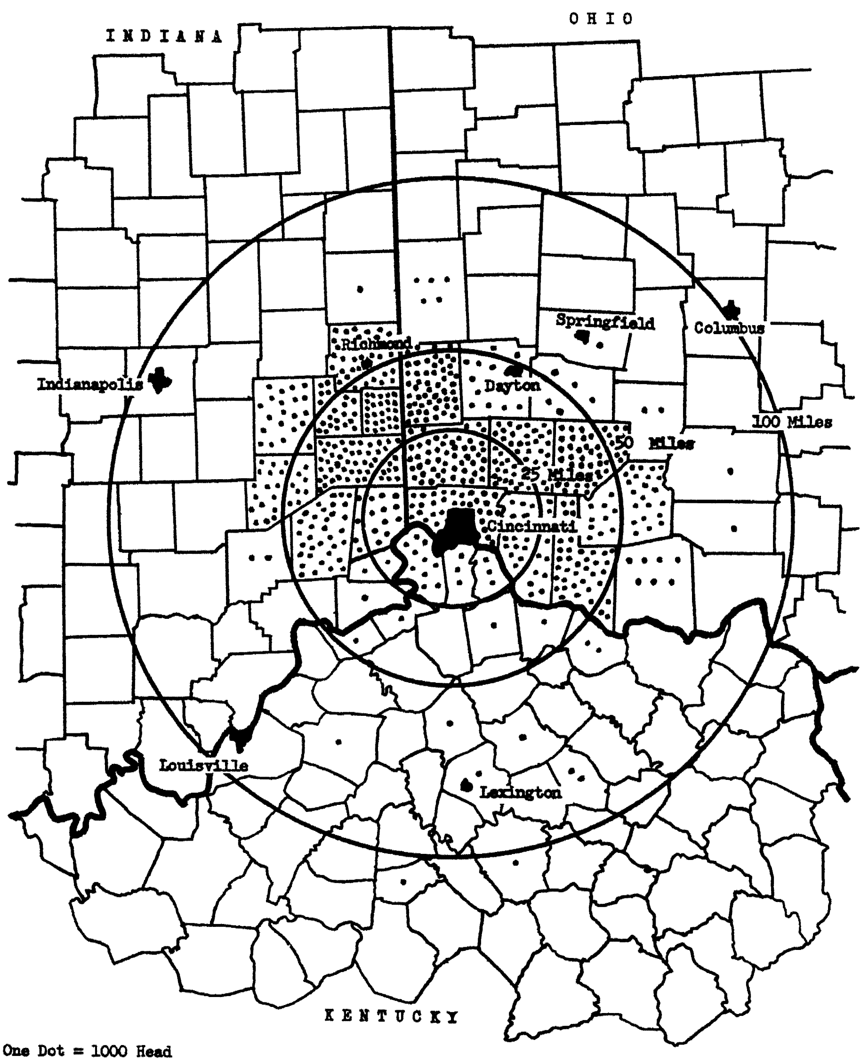
Origin of Calf Receipts by Mileage Zones at Cincinnati, Ohio
1953



One Dot = 200 Head
Source: Original Data

CHART F

Origin of Hog Receipts by Mileage Zones at Cincinnati, Ohio
1953

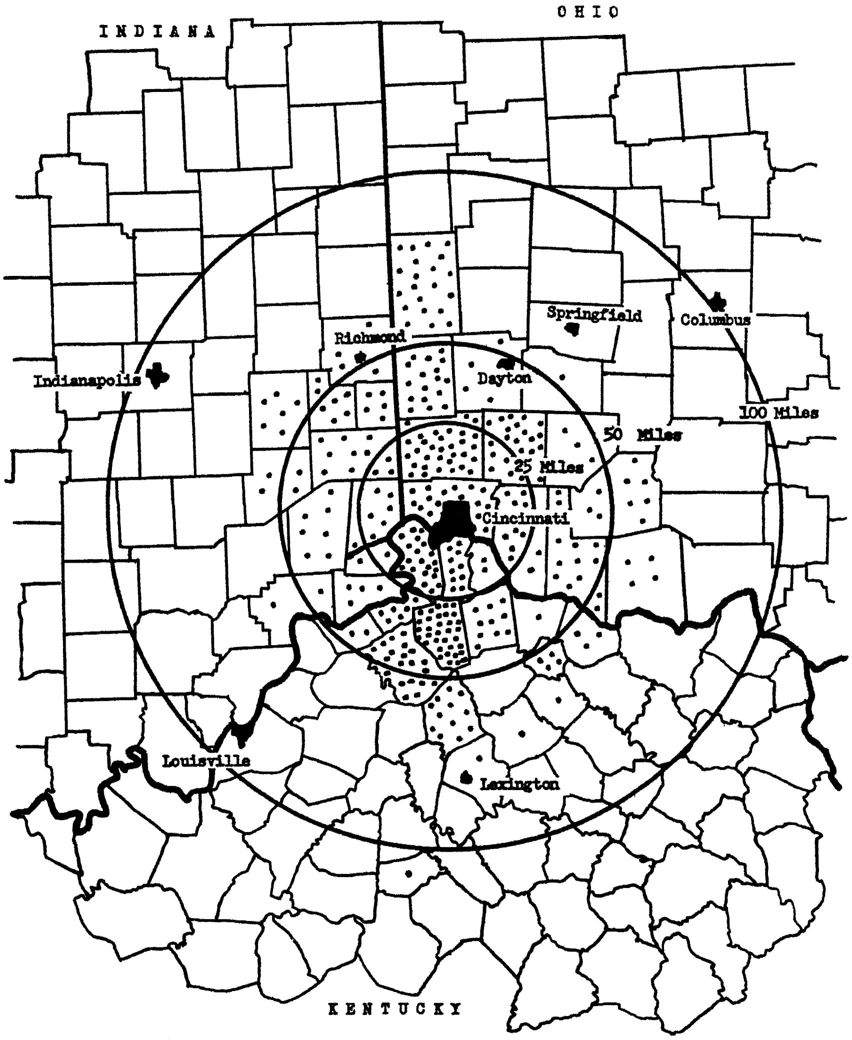


One Dot = 1000 Head

Source: Original Data

CHART G

Origin of Sheep & Lamb Receipts by Mileage Zones at Cincinnati, Ohio
1953



One Dot = 200 Head

Source: Original Data

1953 in the percent of total livestock shipped distances of greater than 50 miles to the market appeared to be the only change in the geographical pattern of receipts at the Cincinnati terminal market.

Disposition of Cattle and Hogs at Cincinnati and Cleveland

A study was made of the disposition of cattle and hogs from Cincinnati and Cleveland. The cattle purchased were classified into three groups. The first was local slaughter, the second was shipments, and the last group was the cattle that went back to the farm for breeding or feeding. Local slaughter was defined as slaughter by the packers that operate in the immediate area of the terminal market. Shipments included livestock purchased by packers outside the immediate area of the terminal market. The "immediate area" included the packers within the metropolitan area of Cincinnati and Cleveland.

The greatest difference between the two markets in the disposition of cattle was the relative volumes purchased by local slaughterers (Table 8). At Cincinnati, about two-thirds of the cattle went to local slaughterers, while at Cleveland, over 90 percent went to local slaughterers. The reasons for the lower local slaughter volume at Cincinnati are twofold. First, there was a relatively large number of smaller packers in the towns around Cincinnati that purchased livestock at the Cincinnati market. Secondly, this market has a relatively large volume of light cattle that attract cattle feeders in the Cincinnati marketing area.

TABLE 8

Disposition of Cattle and Hogs at the
Cleveland and Cincinnati Terminal Markets, 1955

(Percent)

	Local Slaughter		Shipments		Feeder	
Specie	Cinn.	Cleve.	Cinn.	Cleve.	Cinn.	Cleve.
Cattle	66.5%	90.5%	17.8%	7.4%	15.7%	2.1%
Hogs	85.2	71.3	13.7	28.4	1.1	0.3

Source: Original Data

At Cleveland the packing plants, that supply the metropolitan area and surrounding small towns, were located near the stockyards. Therefore, the number of packers from out-of-town that purchased cattle on the Cleveland market was relatively small.

The disposition of hogs at the two markets was almost the reverse of cattle. At Cincinnati, 85 percent of the hogs were purchased by the local slaughterers, and at Cleveland 71 percent. The shipments at Cincinnati were 14 percent, and 28 percent at Cleveland.

Distance of Buyers from the Cleveland Market

The distance of the buyers from the Cleveland market is presented in Table 9. Over 90 percent of the cattle were purchased by the local packers at distances less than ten miles from the market. Three to four percent of the cattle were purchased by small packers within an area of 26 - 50 miles from the market. Hogs were for the most part, 85 percent, purchased by packers ten miles or less from the market, but some were shipped to buyers over 100 miles from the market.

The calf buyers were spread out more than were the buyers for other species of livestock. About 60 percent of the calves were purchased by buyers under ten miles from the market with proportionately less buyers up to 50 miles. There was a sizeable number of buyers over 100 miles (7).

Practically all the sheep and lambs were purchased by buyers 25 miles or less from the market or over 100 miles from the market. A larger percent of the sheep were purchased by buyers over 100 miles from the market than was true for any other class of livestock. In general, the livestock purchased by buyers over 100 miles from the market was purchased through the order buying agencies.

TABLE 9

Destination of Livestock Purchased from Producers
and Consolidated Commission Firms During a Ten Day Period
in April and October, Cleveland, 1953

	Number of Head						Percent Distribution					
	Under 10 mi.	10-25 miles	26-50 miles	51-100 miles	Over 100 mi.	Total	Under 10 mi.	10-25 miles	26-50 miles	51-100 miles	Over 100 mi.	Total
Cattle	3652	26	139	127	18	3962	92.1	.7	3.5	3.2	.5	100
Calves	1033	362	178	27	124	1724	59.9	21.0	10.3	1.6	7.2	100
Hogs	5585	25	4	119	796	6529	85.5	.4	.1	1.8	12.2	100
Sheep and Lambs	2320	701	77	141	1171	4393	52.3	16.0	1.8	3.2	26.7	100

Source: Original Data.

SECTION VI

MAJOR OPERATING COSTS OF THE COMMISSION FIRMS

The question of how efficient are the commission firms in the sale of livestock has been raised by some people. In general, if a commission firm does a large business and another firm does a smaller business, one could expect the larger firm to have a lower per unit cost.

Each firm has certain "fixed expenses" such as salaries, heat, light, rent and certain variable expenses such as hourly labor, certain office expenses, travel and publicity. The question is how do these costs in a commission firm of small volume compare with the costs in a firm of larger volume. Expenses per unit of volume decrease as size of operations increases for business firms operating in many fields, but does this hold for commission firms operating on terminal markets?

The expenses of commission firms may be broken down into the two major cost items: wages and salaries, and all other expenses. Wages and salaries is the largest single cost factor of commission firms. The second cost factor, all other expenses, is the difference between total expenses and wage and salaries. The largest items usually found in all other expenses are travel, telephone, telegraph, advertising, public relations and office expenses.

From the observation of several financial statements of commission firms at different livestock terminal markets, it appeared that an increase in volume does not necessarily lower costs per unit of volume handled. It would be desirable to study the financial statements of forty or more small, medium and large firms that operate on the midwest terminal markets to get a final answer to the above statement.

Such information was not available to the writers, but based on the very limited data available to us, Chart H graphically presents what is believed to be the theoretical relationship between expenses for wages and salaries compared to volume (in hundreds of pounds) of livestock handled. This chart suggests: the unit cost of wages and salaries does not decline as volume of livestock sold increases, but rather tends to be somewhat higher for commission firms handling larger volume. Some firms do a much better job than others and differences in wages and salaries come more from improved management practices rather than from differences in volume of livestock handled.

Chart I graphically presents what is believed to be the theoretical relationship of all other expenses to the hundredweight of livestock sold. All other expenses, per unit, decline very slightly as volume increases. However, the negative slope was so small that there does not seem to be a significant decrease in the amount of all other expenses per unit with an increase in volume of livestock handled.

It appeared that when the volume of livestock handled increases, office expenses and solicitation expenses also increased. Consequently, little net gain was observed. Solicitation expense includes: advertising and travel expenses involved in contacting livestock producers. The increased competition of alternative markets closer to the farmer has necessitated greater solicitation efforts on the part of the commission firms on terminal markets in late years to maintain or increase volume. Increased solicitation costs tended to affect yard or office efficiency. Therefore, little was gained in lowered costs per unit by striving to increase volume. However, this does not mean that the larger firms cannot or do not give a better quality of service to their customers. This phase of the problem needs much more research on the possible economies of larger volume operation of commission firms.

CHART H

The Relationship of Wage and Salary Expenses to Volume of Livestock Handled by Eastern Corn Belt Commission Firms

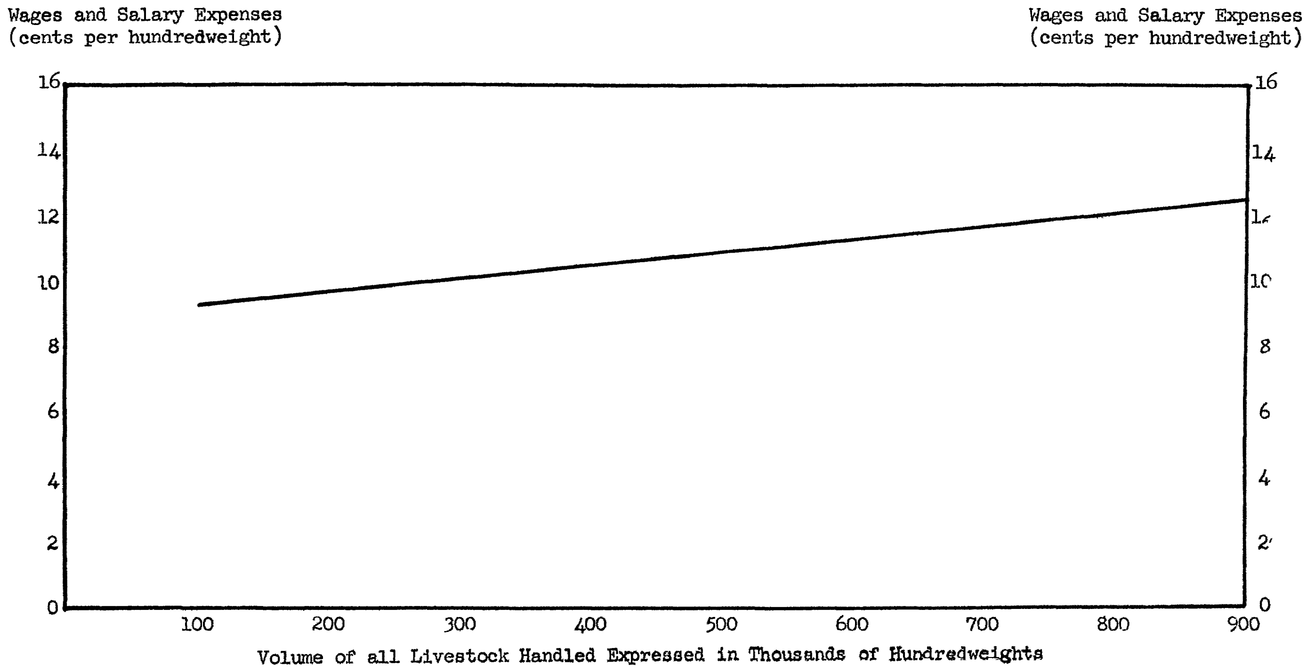
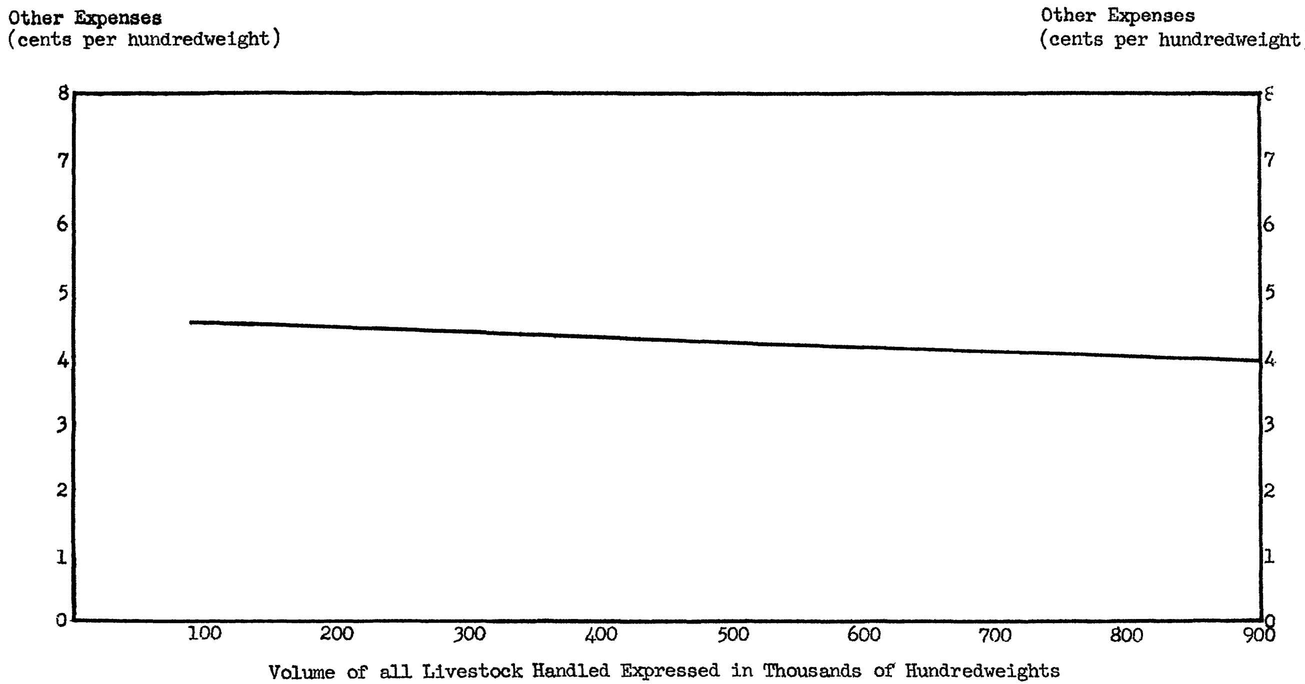


CHART I

The Relationship of "Other Expenses" to Volume of Livestock Handled by Eastern Corn Belt Commission Firms



SECTION VII

AN APPRAISAL OF VARIOUS SERVICES AND FUNCTIONS PERFORMED AT TERMINAL MARKETS

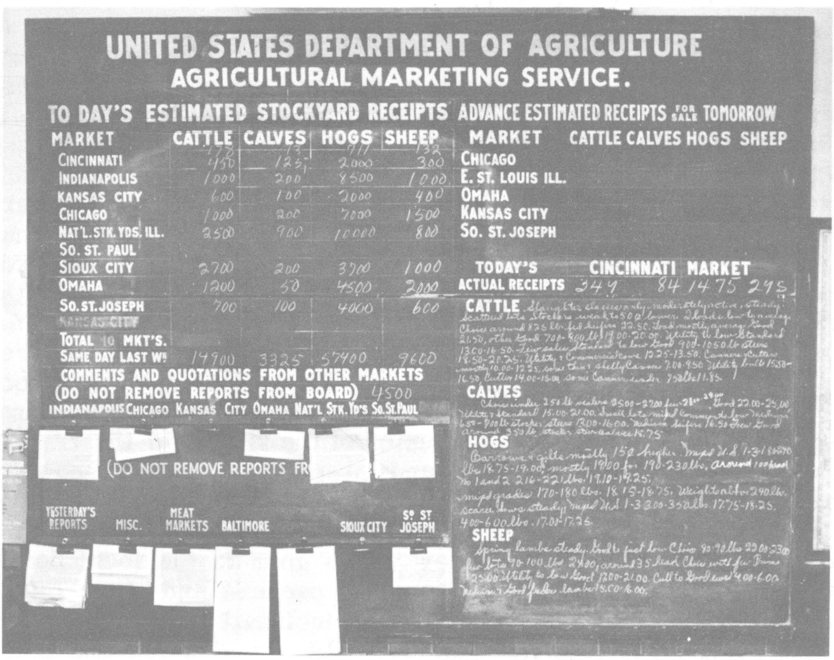
An Appraisal of the Market News Service at the Cincinnati Terminal Market

One of the first market news offices in the United States was located at the terminal livestock market at Cincinnati, Ohio. The personnel now involved in reporting the market news included the market reporter and one clerk. Basically, the function of the market news service is to receive and post the estimated receipts at nine principal markets at 7:00 A. M. on the blackboard located in the exchange building. This information goes on the board and is available to everyone.

The Federal Market News Reporter starts work each day at about 8:00 A. M., when he goes into the trading area and contacts the buyers and sellers to obtain information of market transactions on cattle, calves, hogs and sheep. At approximately 10:30 A. M., the reporter files a market report on the transactions up to that time. This information goes out over a nationwide teletype system, is released to the press, and Western Union makes reports available to radio stations. This information is written also on the blackboard of the stockyards company as mentioned above. The reporter returns to the trading area contacting various packers, buyers and sellers for further market information and market developments, and remains in the trading area until noon. The majority of livestock is sold before noon in a normal day's operation at a terminal livestock market. At the conclusion of the visit into the trading area he returns to the office and prepares a detailed copy of market prices for that day's business which is released at 2:00 P. M. and goes to the local newspapers. In addition, the reporter writes a weekly review which goes to the local newspapers, and a mailing list of farmers, packers and other interested parties located largely in the Cincinnati area. The daily record of market quotations includes the actual sales and price quotations although the quotations may not be completely tested. Some quotations could be anticipated sales prices. A copy goes to Washington weekly. Where grades are common to the livestock, prices are reported by grades.

There are 33 to 35 reporting offices in the country. When the weekly summary is made on Fridays, an average quotation by class, grade and weight is derived from the report of the week's activity. This average shows the general price trend as it changes from day to day and during the week. The weeks are averaged to get a monthly average. In order to help the market reporter to keep in line, grades are set up to be interpreted uniformly at all reporting stations. Grading is not an exact science, so in conjunction with market news there is a standard and grading division, which consists of men who go into various packing plants and observe dressed carcasses according to grade standards.

The determination of grade is a major problem for the individual reporter. It is the reporter's responsibility to have these grade standards in mind, and he in turn must fix in his own mind standards that are established and tested by the Department of Agriculture for quoting grades on certain species of livestock. This system seems to provide a reliable source of livestock market reporting at Cincinnati.



Blackboard located in the Exchange building at the Cincinnati Terminal Market on which the Federal Market News Reporter posts the day's estimated stockyard receipts and other pertinent market information.

An Appraisal of the Market News Service at the Cleveland Terminal Market

In contrast with the Cincinnati Livestock Market, the Cleveland Union Stockyards has no Federal Market Reporter at the market. The market news information is gathered and reported by an employee of the stockyards company. This reporter estimates the daily receipts for the coming day and posts them on a board located in a central point in the stockyard company exchange building.

The livestock reporter estimates daily receipts between 7:00 and 8:00 A. M. and obtains specific information at 9:00 A. M. daily, and attempts to contact everyone connected with selling livestock and also contacts some buyers. He maintains a daily and permanent report of the market activities throughout the year. This reporter gets information up to the time of news broadcasts. The sale of cattle, sheep and calves at the Cleveland Terminal Market start at 8:30 A. M. with hog trading opening at 10:00 A. M. Four o'clock is closing time and receipts after this hour are carried into the next day.

The Cleveland Livestock News, is published every Thursday containing the market news for the week and other public relations material. Approximately twenty-six hundred copies go to interested farmers, packers, etc. every week. The Cleveland Livestock News was published daily from 1895 - 1918, but since 1918 it has been published weekly up to the present time. The weekly livestock news also contains an editorial, which consists basically of market analysis, personal items on truckers and producers, information of general interest, meeting notices and advertising. However, budget limitations usually prevent greater expansion of this service.

After careful observation at different times of the market news reporting service at Cleveland, as maintained by an employee of the stockyards company, it appears that this type of reporting is not as complete as the reporting by a Federal Market News Reporter. The market report at Cleveland would be considerably more valuable for those individuals who sell livestock at Cleveland if the present market reports more closely followed the form of the federal market news service reports.

An Appraisal of the Bureau of Animal Industry Functions - U.S.D.A. at the Cincinnati and Cleveland Terminal Markets

The basic function of the Bureau of Animal Industry U. S. D. A. is to aid in the supervision and control of animals moving interstate. The bureau is primarily concerned with the detection of diseased animals and proper control and disposition of these animals. Actually, all animals arriving at the yards are inspected for contagious diseases. If passed, health certificates are issued for those animals going interstate; and for sheep which have been dipped, a certificate of clearance is given for any destination. For example, if scab were found, dipping would be compulsory before the animals could be shipped interstate. The inspection commission issues other administrative directives.

A veterinarian serves as inspector in charge of the Cincinnati Field Station conducting public stockyards inspection and other activities where the volume of livestock receipts is large and the operation is complex and diversified. It is his responsibility to administer the regulations governing the interstate movement of livestock. To accomplish this end he plans, organizes or directs the work of employees in the following: (1) the inspection of livestock for evidence of parasitic infectious and contagious diseases, (2) proper disposition of infected or diseased livestock including slaughter of T. B. and Brucellosis reactors, (3) the immunization of swine against hog cholera when leaving the yards for feeding and breeding, (4) issuance of certificates covering animals leaving the yard for interstate shipment.

Other duties performed by The Bureau of Animal Industry include: examination of animals to determine presence of ticks and other parasitic symptoms of diseases; recording temperature of animals, attaching quarantine notices to freight cars transporting infected livestock; locking infected alleys and freight cars to prevent use until disinfected; insuring proper cleaning and disinfecting of pens, trucks and rail cars; and insuring the proper dipping of livestock for ticks and scabies and immunization of swine for cholera.

An Appraisal of the Bureau of Animal Industry, State Department of Agriculture, State of Ohio at the Cincinnati and Cleveland Terminal Markets

The main function of the licensed veterinarian employed by the Ohio Department of Agriculture is to detect infectious and contagious diseases of animals and supervise their segregation and disposition in the interest of the State of Ohio. The state supervision in no way conflicts with the Federal Bureau of Animal Industry's duties and functions. The state veterinarian cooperates with the Federal Bureau and has specific duties as a representative of the State of Ohio. His work complements that of the Federal Bureau of Animal Industry. Personnel of the State Bureau issue health certificates for breeding, or dairy purposes. They supervise livestock coming from Ohio farms, that must be tested or immunized, before the livestock is permitted to return to Ohio farms. Treating feeder pigs for hog cholera is an example. In conjunction, they also operate a Brucellosis laboratory located at Cincinnati to which veterinarians in nearby areas can submit blood samples for Brucellosis tests. There is no limit to the area, but it consists primarily of 13 counties adjacent to Cincinnati. This testing is done free of charge. The laboratory in Cincinnati has been in operation for five years, and the office has been in operation since January, 1915.

Summary and Recommendations

Present problems of terminal markets in Ohio are complex and not easily solved. They have arisen out of a combination of factors.

(1) The increased mobility of truck transportation has permitted livestock to move in all directions to market outlets as compared to the inflexibility of movement by railroad transportation.

(2) The packing industry has decentralized. With more local packers, many slaughterers have located near livestock producing areas.

(3) Numerous auction and country or local markets have been established in areas near the supply of livestock.

(4) Most terminal markets have facilities that are large, represent a big investment and are where historically there was good economic reason to locate. Because of shift in livestock production areas and transportation developments, the terminal market locations no longer are as desirable as they once were.

(5) Misinformation exists in the minds of many farmers concerning the method of sale conducted at the terminal markets. In the older days the farmer often accompanied his livestock to the market and observed the sale. The terminal markets in the early days operated sizeable hotels to accommodate consignors from a distance. Today many consignors have never been to the market, and have a very limited, sometimes erroneous, idea of the operation of the terminal market and the functions of a commission firm. To overcome this situation, both the Cincinnati and Cleveland terminals offer complete tour programs for any group interested in learning about market operation and facilities.

(6) In recent years nearly 100 percent of the salable receipts in Ohio terminal markets arrive by trucks. This has caused many problems because the physical facilities of the terminals were not adapted to handle the large truck receipts. Further, truck transportation brought a much larger proportion of small consignments of livestock. This increased the problem of penning the livestock and

maintaining proper identity. As a result, the terminal markets in recent years have been forced to make some rather expensive modifications in unloading facilities and size of pens.

The Cleveland market to meet the needs of truck transportation, recently installed an unloading chute capable of being elevated to different heights to accommodate triple deck hog trucks. There seems to be adequate parking for trucks about the stockyards with little congestion except on days of extremely heavy receipts. There also is a good restaurant in operation in the exchange building for the convenience of truckers, consignors and market personnel.

In recent years, Cincinnati market moved the unloading docks for cattle off the street so that traffic congestion could be minimized. At present, Cincinnati has one unloading area for cattle and calves, one for hogs and one for sheep. Traffic congestion has been practically eliminated except on the heaviest days when some delays develop. Considerable parking area is available, but much space is wasted. If the parking areas were marked off more trucks could be parked in the available space. Some of the least used pens might be removed to make room for truck parking and for farmers cars. Cincinnati has a good restaurant to serve the personnel of the market and others.

Salable receipts are the largest source of revenue for both the stockyard company and the commission firms. Their goal should be to maintain a supply of livestock of the volume and type demanded by the buyers.

The packer gains when the volume and type of receipts required by his meat trade are available at a terminal. He thus avoids added expense and trouble of procuring livestock from distant areas.

From the daily salable receipt records at Cleveland and Cincinnati, it was concluded that little activity took place on these two markets after Tuesday, except for hogs at Cincinnati. The stockyard company, the commission agencies and the packers all have an interest in reducing the variation in the daily salable receipts. The heavy receipts that enter some terminal markets the first of the week complicates labor management, overtaxes the physical facilities in the stockyards and make it necessary for the packer to buy and hold the livestock over one or more days before slaughter.

Truckers at the two markets gave these reasons why the receipts are heaviest during the first two days of the week: (1) habit of farmers, (2) farmers think that the market is better during the first of the week, (3) packers buy more at first of week, (4) more buyers first of the week, and, (5) farmers have time on Sunday to get livestock ready for market.

Commission men gave various reasons to explain patterns of receipts at their markets, some reasons the same as those given by truckers.

Farmers, marketing agencies, truckers stockyard companies, and packers should coordinate their efforts in solving the problem of unbalanced receipts of salable livestock.

When the terminal markets started to develop about 90 years ago, livestock production was expanding rapidly, and there were few alternative outlets at which to market livestock. Today, most farmers have many alternative market outlets for their livestock. Public relations has become more important to the terminal markets.

Commission firms spend a considerable sum in making contacts with farmers in order to sell their services. These services include the sale of the consignor's livestock, bookkeeping service in paying the farmer, the stockyards company and the trucker and advice on market trends and the market conditions for various types and grades of livestock.

Personnel concerned with public relations should reach agreement concerning the details of the public relations programs at the market and should operate as a coordinated unit. The present economic forces are not as favorable for the terminal markets as they were thirty-five years ago. This fact must be given serious consideration. Public relations personnel often attempt to justify the terminal markets on the basis of past economic conditions and fail to consider present factors. A good public relations program should consider: (1) the present livestock supply areas, (2) the daily volume of receipts and the receipts and the effect of unbalanced daily volume on prices, (3) the major buyers on the market and the volume, grades and quality of livestock that they buy, (4) the services performed and the cost of these services, (5) coordinated effort to eliminate the undesirable features of the market so far as possible. Concentration of public relations effort should be in areas of heavy potential livestock receipts.

This study of terminal market operations revealed practices which should be changed.

(1) In the hog yards at Cincinnati, a ramp to the second deck and the ramps at the unloading chutes become slippery.

(2) In the cattle yard at Cincinnati, unloading docks are not covered and the unloading ramps at times are very slippery. The construction of stair step ramps at terminal markets provides both faster and safer movement of livestock. Some stockyards have found stair step ramps for unloading livestock from trucks help to reduce the effort in moving livestock and also reduce loss due to bruising and rough handling of livestock. Impatient truckers and stockyard personnel tend to be rougher than necessary in driving cattle and calves to the commission firm pens. More effort should be made to reduce rough handling of the livestock and reduce the losses resulting from bruising.

Around 1900, nearly all the livestock in the United States was marketed through terminal markets. Today, less than half the livestock is marketed through terminals. Part of this decrease is due to a strong resistance within the markets to adoption of new marketing practices. Generally, the terminals have made a real effort to improve facilities. Improvements in methods of sale have not generally received sufficient attention.

What about the future of terminal markets? There seems to be no clear-cut answer. Auctions, country or local markets and selling direct to slaughterers either at their plants or their owned buying stations are giving terminal markets real competition. In spite of competition many terminal markets have maintained a rather stable volume of trucked-in livestock.

Population is expanding in Cleveland, Cincinnati, Dayton, Indianapolis, Louisville and other terminal market cities. Truckers must drive through heavy city traffic to get to the stockyards. The cities are spreading. Livestock trucks move over longer distances in city traffic. Many stockyard locations would be ideal for industrial development. Site value for alternative uses is increasing. This means the valuation of facilities have increased and the Packer and Stockyards Administration permits increased rates to cover the higher valuation and operation costs.

Rates charged by commission firms at terminals have increased further to meet rising costs. These factors are working against the terminals.

On the other hand, if proposed new highways (freeways) are completed within a few years into these cities, trucks will be able to move rapidly from the country to the yards. Most terminals have a large volume of livestock and attract more buyers than most country markets. Many sellers like the services offered by terminals.

Weak prices at times due to a lack of strong buying competition at local or country markets have been unfavorable to farmers' interests.

On the other hand, many livestock farmers favor and patronize the nearby markets because of convenience, lower shrink, less trucking and other costs. These factors are not favorable to terminals.

There are no clear-cut trends that would indicate that either terminal or country marketing will be eliminated.

APPENDIX

TABLE 10

Point of Origin of Salable Receipts at Cincinnati, Ohio
1940 and 1953

Area	Cattle		Calves		Hogs		Sheep & Lambs	
Ohio	1940	1953	1940	1953	1940	1953	1940	1953
Adams	1862	2529	1605	1253	12777	7667	2056	729
Auglaize	1757	4594	45	24	41	123	0	0
Brown	3258	5861	3516	4180	38459	33673	5502	2554
Butler	7624	15494	8536	4473	101245	79114	10083	9321
Clermont	4282	4498	4758	2545	31649	22204	2827	1703
Clinton	2730	1978	1421	199	53657	26030	4671	637
Darke	786	1382	71	54	1567	4171	630	329
Fayette	1726	231	82	37	533	1544	62	0
Greene	1380	3171	355	31	21184	4640	1369	129
Hamilton	12380	24464	8966	6280	31571	32216	4592	3219
Highland	2779	3293	1440	1481	14248	18333	3785	1578
Madison	484	1855	14	3	419	66	385	0
Mercer	414	89	15	0	104	0	18	0
Miami	633	847	0	0	325	7	22	0
Montgomery	1160	2574	392	554	10563	10443	549	792
Preble	6772	11697	2126	1908	76204	76408	3380	3462
Ross	54	190	3	12	46	1871	27	23
Scioto	546	184	41	44	255	220	80	0
Warren	4350	5550	4226	1857	72148	54773	6121	4488
Indiana								
Bartholomew	695	149	4	2	420	6	14	0
Dearborn	3297	3520	5148	3233	16700	14417	2581	1359
Decatur	5477	6011	885	780	18342	22923	528	821
Fayette	1424	1896	931	353	43470	20273	1647	1355
Franklin	2876	4391	3406	2796	49695	57562	4268	2175
Henry	87	65	9	0	1340	72	858	0
Jackson	370	957	7	6	1056	184	18	0
Jefferson	403	122	93	21	734	52	1212	461
Jennings	535	216	626	58	6164	1927	534	306
Marion	1720	301	133	0	33	75	0	0
Ohio	701	642	1353	764	2590	1836	1398	447
Randolf	580	396	43	63	2198	929	1823	0
Ripley	2792	4958	4587	3142	30811	32996	2006	1488
Rush	2621	3685	464	86	25232	17007	1871	1127
Switzerland	1112	901	1883	1123	4275	1174	2311	882
Union	2057	2580	1036	616	51789	32501	3710	978
Wayne	1963	2189	690	125	44092	30841	2352	717
Johnson	1208	317	0	0	31	0	0	0

TABLE 10 (Continued)

Point of Origin of Salable Receipts at Cincinnati, Ohio
1940 and 1953

Area	Cattle		Calves		Hogs		Sheep & Lambs	
Kentucky	1940	1953	1940	1953	1940	1953	1940	1953
Barren	270	2138	107	26	2	1	0	2
Boone	2960	4449	4142	2860	12484	11017	13725	3968
Bourbon	953	1398	34	141	506	1024	407	311
Boyle	4166	5121	98	95	690	572	265	166
Bracken	2413	2137	1523	2277	1852	631	2184	115
Campbell	1430	1794	1571	1980	3971	2753	1252	539
Carroll	831	661	1011	148	3784	481	3322	380
Fayette	4810	11230	337	435	1020	1046	164	111
Fleming	2270	4520	126	85	790	41		0
Gallatin	685	926	802	774	2094	813	6947	1276
Garrard	2103	528	223	3	1204	103	1345	0
Grant	2824	5043	3363	4545	4751	1189	27923	10475
Harrison	2088	3904	785	1117	2299	3199	7813	4886
Henry	889	2336	61	66	1106	1	140	13
Jefferson	166	650	3	6	189	111	18	15
Kenton	1930	2596	2317	1832	4049	2338	5041	1954
Laurel	171	819	37	4	56	2	0	0
Madison	4774	1794	64	76	1539	3180	123	0
Mason	2538	1482	245	222	2643	1202	2430	539
Montgomery	2106	4525	530	191	208	1357	0	25
Owen	2112	3229	1659	1007	1698	210	8812	6134
Pendleton	2414	2667	2754	2897	2380	857	5817	1993
Pulaski	1037	487	184	36	277	66	11	0
Scott	773	752	66	102	775	369	705	1030
Shelby	581	52	16	3	2063	344	458	55
Wayne	1206	333	100	1	4313	0	27	0
Woodford	790	364	21	0	360	0	0	0
Total by State								
Illinois	241	1057	0	10	420	63	0	0
Indiana	33463	34378	21541	13206	302475	254817	27374	12116
Kentucky	53682	72243	22903	22294	63672	31898	91823	35154
Ohio	57447	91295	37634	24957	468262	373519	48235	29964

Source: Original Data